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NBS CIRCULAR 562

**Bibliography of Research
on Deuterium and Tritium Compounds
1945 to 1952**

UNITED STATES DEPARTMENT OF COMMERCE

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Bibliography of Research
on Deuterium and Tritium Compounds
1945 to 1952

Lawrence M. Brown, Abraham S. Friedman
and Charles W. Beckett



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Preface

Late in 1951, the Thermodynamics Section of the National Bureau of Standards became actively engaged in an Isotope Exchange Data Program, sponsored by the Atomic Energy Commission Division of Research, which involved, in part, the preparation of bibliographies of research on the hydrogen isotopes for the years subsequent to 1945. As a result of this phase of the Program, annual bibliographies of deuterium and tritium research covering the years 1946 to 1952 and bibliographies of Government technical reports covering the period 1947 to November 1952 were prepared and distributed to chemists and physicists engaged in research on deuterium and tritium. The importance of the hydrogen isotopes as research tools and the utility of these bibliographies as an aid to scientific research relating to them has prompted the compilation of this Circular, which is a cumulative bibliography of published research on deuterium and tritium from about 1945 to 1952.

A. V. ASTIN, *Director.*

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Bibliography of Research on Deuterium and Tritium Compounds

Lawrence M. Brown, Abraham S. Friedman, and Charles M. Beckett

A bibliography of 2,482 references to published research on the properties of deuterium and tritium compounds is given. The subject matter of each entry in the bibliography is indicated by letter codes related to a list of broad subject headings shown in the Introduction. An index of deuterium and tritium compounds and a subject index are included.

1. Introduction

The Circular is a bibliography of research on deuterium and tritium compounds for the years 1945 to 1952. It is divided into three sections: the first contains a bibliography and author index, and the second and third contain the subject and compound indexes, respectively.

The bibliography contains 2,482 references. Approximately 95 percent of the references were obtained from Chemical Abstracts for the years 1946 to 1952, inclusive; the remaining 5 percent were found in British Abstracts and Physics Abstracts (Science Abstracts, Section A) for the same years.

The references in the bibliography are arranged alphabetically according to the last name of the leading author. The names of coauthors are also included and are cross-referenced.

Each entry in the bibliography is numbered by a letter-number symbol that corresponds to the first letter of the leading author's last name and the numerical listing of the reference under that letter. This numbering system is used in the indexing of the entries in the bibliography.

The subject matter of the references is indicated at the end of each entry by means of one or more of the letter codes related to the subject categories shown in the list of Principal Topics. The main headings are designated by two letters of the heading title, and the subheadings are represented by these two letters and one or two additional, appropriate letters. For example, the code symbol for Chemical Kinetics is K1 and that for the kinetics of photochemical reactions is K1P. The subject content was determined generally from the abstracts of the references; the original articles were consulted when the abstracts were not sufficiently informative. Review articles and abstracts are so described.

In preparing the compound index the nomenclature used in Lange's Handbook of Chemistry has been followed. Common synonyms of many of the compounds have been entered and cross-indexed to the compound name used by Lange. Compounds containing tritium have been named in accordance with the modified Boughton system,¹ in which the name of the hydrogen compound

is followed by "-t". No subscript has been appended to the "-t" to indicate the extent of tritium substitution. The chemical formula for each compound containing deuterium or tritium is given.

No listing has been made in the compound index under Water or Water-t for exchange reactions with water or for the use of water as a solvent. A lower case "s" has been used to indicate other substances used as solvents (see, for example, under Benzene). In addition, no listing has been made under Hydrogen, Tritium, Water, or Water-t where the subjects involved are: Analytical Methods, General and Review, Nuclear Properties, Separation, and Atomic Spectra. References to such research may be found under these headings in the subject index.

The arrangement and the methods of coding and indexing used in the *Bibliography of Research on Heavy Hydrogen Compounds* by Kimball, Urey, and Kirshenbaum have been followed in the preparation of this Circular.

For convenience, the colloquial abbreviation C.A. for Chemical Abstracts has been used throughout the bibliography.

This Circular was prepared as part of a broad Isotope Exchange Program sponsored by the Atomic Energy Commission Division of Research. The help and interest of a large number of scientists in carrying out this program is gratefully acknowledged, in particular: Doctors F. G. Brickwedde (National Bureau of Standards), H. C. Urey (University of Chicago), J. Bigeleisen (Brookhaven National Laboratory), R. E. Connick (University of California), and G. Kavanagh (Atomic Energy Commission Division of Research). Messrs. J. Hilsenrath, J. Park, J. Goldstein, K. Nelson, and S. Prusch, and the staffs of the Thermodynamics Section and the Applied Mathematics Division of the National Bureau of Standards have been very helpful in the preparation of this Circular.

¹ Crane, Ind. Eng. Chem. News Ed. 13, 200-01 (1935).

2. Principal Topics and Subject Code

Ab	Abundance. AbG Geological. AbO Organic.	Me	Mechanical Properties. MeAc Acoustic properties. MeD Density and molar volume. MeDi Diffusion. MeSt Surface tension. MeV Viscosity.
Ad	Adsorption and Sorption. AdC Chromatography. AdG Gases on solids. AdL Liquids on solids.	No	Nomenclature.
An	Analytical Methods. AnC Counters, cloud chambers, electrometers, ionization chambers, and photographic emulsions. AnCl Colorimetric methods. AnDn Density methods. AnEl Optical rotation. AnMg Magnetic and Magnetoöptic methods. AnMs Mass spectrograph and mass spectrometer. AnRf Refractive index. AnSp Absorption spectra. AnTh Thermal conduction.	Nu	Nuclear Properties. NuB Beta ray spectra. NuH Hyperfine structure. NuIn Interactions (absorption of radiation, ranges, and scattering). NuM Masses and binding energies. NuMg Magnetic moments. NuP Piles, reactors, and accelerators. NuQ Quadrupole moments. NuR Reactions. NuRe Magnetic resonances. NuS Spins, states, and wave functions. NuSt Statistics.
Bi	Biological Effects of Deuterium and Tritium Compounds and of Deuterons and Tritons. BiB Botanical. BiC Biochemical. BiZ Zoological.	Sd	Solid State. SdCr Crystal structure (including electron, neutron, and X-ray diffraction). SdEc Elastic constants. SdNu Nuclear properties. SdSp Spectra. SdTr Transitions (including phase transitions).
Ec	Electrochemical Properties. EcC Conductivities and mobilities. EcO Overvoltage. EcP Electrode potentials.	Se	Isotope Separation. SeAc Acoustics. SeAd Adsorption (including chromatography and ion exchange). SeCf Centrifuging. SeCh Chemical reaction. SeCr Crystallization. SeDf Diffusion (including thermal diffusion). SeDs Distillation. SeEl Electrolysis. SeEm Electromagnetic methods. SeMs Mass spectrometer and mass spectrograph. SeSo Solubility.
El	Electromagnetic and Optical Properties (Except Spectra). ElCl Color Effects. ElD Dielectric constants and dipole moments. ElGd Gas discharges. ElMg Magnetic susceptibilities and Curie constants. ElMm Magnetic moments. ElMr Magnetic rotatory power. ElP Polarization. ElRf Refractive index and molar refraction. ElRo Optical rotatory power. ElSc Light scattering. ElT Relaxation times.	So	Solubility. SoG Gases in solids. SoH In H ₂ O, HDO, and D ₂ O. Sol In inorganic solvents. SoO In organic solvents.
Eq	Chemical Equilibria. EqG Gaseous. EqH Heterogeneous. EqI Ionic. EqL Liquid and solution.	Sp	Spectra and Spectroscopic Constants. SpA Atomic (line). SpEl Molecular electronic. SpFl Fluorescence. SpM Microwave. SpVi Vibrational (including Raman). SpX X-ray.
Ge	General and Review.	Sr	Mass Spectrometry.
In	Indicator and Tracer Techniques. InBi Biological. InKi Reaction kinetics. InSo Solubility determinations. InSp Spectra InSt Structure determinations.	St	Molecular Structure. StA Molecular association. StD Molecular constants (interatomic distances, bond angles, moments of inertia, and force constants). StDi Electron, neutron, and X-ray diffraction.
Is	Isotope Effects. IsCr Crystal structure. IsEl Electromagnetic properties. IsEq Chemical equilibria. IsKi Reaction kinetics. IsMs Mass spectra. IsSp Spectra. IsTh Thermodynamic properties.	Sy	Synthesis and Preparation of Compounds.
Ki	Chemical Kinetics. KiB Biochemical. KiG Gaseous. KiH Heterogeneous. KiI Ionic. KiL Liquid and solution. KiP Photochemical. KiR Radiochemical. KiS Solid state.	Th	Thermodynamic and Related Properties. ThD Diffusion and heat conduction. ThF Thermodynamic functions for pure substances and reactions between them (E , H , S , C_p , C_v , F , K , ΔH , ΔS , ΔE , ΔC_p , ΔF , data of state, and thermal expansion). ThP Phase equilibria (melting points, triple points, boiling points, heats of transition, critical constants, and vapor pressures). ThS Statistical mechanics and statistical thermodynamics. ThSo Properties of solutions (activities, fugacities, pH , vapor pressures, heats of solution and dilution, and colligative properties).

3. Bibliography and Author Index

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4. Subject Index

This index is divided into a number of principal and subsidiary subject headings to which are assigned appropriate letter-code symbols. The letter-number symbols following each heading refer to references in the bibliography.

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AnCl (colorimetric methods): F31, K85.
AnDn (density methods): A96, B243, F75, F77, K85, L25, M60, O1, O2, O3, O8, R52, S27, S48, S49, S79, V21.
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- BiB (botanical):** E48.
- BiC (biochemical):** A83, B110, B143, B144, C2, D15, E48, G57, G86, G87, H126, H192, H196, J2, K9, K77, K97, M23, M137, O8, P66, P72, P73, P74, P87, S49, S76, S93, V33.
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- EcO (overvoltage):** B254, C39, P92.
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- EIRo (optical rotatory power):** A21, A24, E24, F87, I34, K68, M59, M60, P26, S148.
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- MeSt (surface tension):** H35, P51.
- MeV (viscosity):** A96, B24, B155, B216, D59, H36, H37, I24, I25, I26, I29, I30, L47, P51, R94, T90, T91, U2, V18, W71, W132.
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- NuR (reactions):** A2, A3, A8, A12, A14, A16, A17, A19, A20, A21, A25, A28, A29, A30, A31, A32, A33, A34, A35, A38, A39, A40, A41, A42, A44, A45, A46, A48, A49, A50, A52, A53, A54, A56, A60, A63, A64, A65, A66, A70, A71, A73, A85, A86, A87, A88, A95, A102, A104, A106, A109, B1, B2, B3, B4, B23, B27, B28, B32, B33, B35, B36, B37, B38, B39, B40, B45, B46, B47, B48, B60, B62, B65, B66, B71, B72, B75, B76, B77, B81, B83, B85, B97, B101, B102, B103, B114, B115, B116, B117, B118, B119, B120, B126, B127, B134, B137, B149, B151, B152, B153, B157, B161, B163, B164, B165, B166, B170, B171, B172, B173, B176, B177, B180, B182, B184, B186, B187, B188, B194, B195, B208, B209, B210, B211, B217, B220, B222, B223, B224, B234, B235, B236, B238, B239, B240, B241, B244, B247, B248, B255, B257, B258, B259, B260, B264, B266, B267, B268, B269, B270, B273, B274, B275, B277, B278, B279, B280, B283, B284, B285, C3, C4,

Nu NuR (reactions)—Continued:

C7, C8, C9, C12, C15, C16, C17, C18, C20, C23, C24, C25, C26, C27, C42, C45, C46, C47, C50, C51, C56, C57, C58, C64, C65, C66, C67, C68, C69, C72, C74, C80, C81, C83, C84, C85, C86, C87, C102, C103, C109, C110, C112, C113, C116, C119, C120, C121, C123, C124, C128, C130, C143, C144, C145, C147, C148, C149, C150, C151, C152, C153, C156, C157, C161, C162, D5, D6, D10, D13, D18, D19, D20, D21, D22, D36, D37, D39, D57, D74, D78, D79, D81, D82, D83, E6, E7, E13, E17, E18, E19, E20, E21, E22, E25, E29, E30, E31, E32, E33, E34, E35, E36, E37, E38, E40, E43, E44, E50, F1, F2, F3, F4, F5, F6, F8, F9, F15, F16, F32, F33, F34, F37, F38, F50, F51, F52, F54, F59, F61, F62, F63, F83, F88, F89, F90, G1, G5, G16, G17, G23, G24, G25, G26, G27, G28, G29, G30, G31, G32, G33, G34, G35, G36, G37, G38, G41, G42, G43, G44, G45, G46, G47, G48, G49, G50, G56, G59, G62, G63, G64, G65, G66, G69, G73, G74, G76, G90, G92, G93, G94, G95, G99, G101, G102, G103, G108, G110, G117, G124, G129, G131, G132, G133, G137, H1, H2, H3, H7, H11, H14, H16, H21, H25, H31, H32, H33, H34, H39, H43, H51, H52, H53, H56, H58, H59, H60, H61, H62, H63, H64, H65, H66, H68, H69, H70, H71, H73, H74, H78, H79, H80, H105, H106, H107, H113, H114, H120, H123, H128, H129, H131, H134, H137, H139, H140, H149, H150, H151, H160, H161, H162, H169, H170, H172, H173, H174, H175, H176, H177, H180, H181, H182, H183, H185, H194, H198, H199, I3, I4, I5, I6, I7, I11, I14, I15, I16, I18, I19, I23, J3, J4, J6, J7, J8, J9, J10, J11, J13, J18, J19, J20, J21, J22, J27, J28, J30, J43, J48, J49, J52, J53, K2, K14, K15, K19, K20, K26, K29, K34, K35, K43, K44, K58, K62, K64, K65, K71, K88, K91, K95, K96, K98, K100, K101, K110, K111, K112, K113, K114, K115, K116, K117, K118, K119, K120, K121, L10, L14, L16, L17, L18, L21, L22, L26, L27, L28, L29, L31, L33, L35, L36, L37, L38, L43, L44, L45, L46, L53, L55, L60, L62, L67, L68, L69, L79, L80, L81, L82, L83, L89, L96, L104, L105, M4, M5, M6, M9, M10, M15, M16, M20, M21, M22, M26, M30, M31, M32, M34, M35, M36, M37, M38, M39, M40, M41, M42, M48, M49, M50, M51, M52, M53, M62, M63, M76, M77, M80, M81, M86, M87, M88, M89, M90, M95, M96, M97, M106, M107, M108, M110, M111, M120, M121, M126, M130, M131, M132, M147, M150, M152, M153, M154, M155, M157, M172, N1, N5, N8, N11, N15, N16, N17, N18, N19, N20, N21, N22, N23, N28, N30, N31, N40, N61, O9, O14, O17, O18, O21, O28, P2, P7, P8, P9, P10, P14, P16, P17, P18, P19, P20, P21, P22, P25, P30, P31, P32, P33, P34, P35, P36, P38, P39, P40, P41, P42, P45, P46, P47, P48, P50, P53, P55, P56, P57, P58, P59, P60, P61, P62, P63, P75, P76, P77, P80, P82, P83, P85, P91, P93, P98, P99, P106, P107, Q3, R1, R5, R14, R15, R17, R18, R20, R21, R32, R33, R34, R35, R36, R39, R41, R46, R47, R50, R54, R55, R57, R58, R63, R74, R77, R78, R81, R87, R88, R93, R95, R101, R102, S5, S9, S10, S11, S12, S13, S15, S16, S17, S20, S23, S38, S39, S40, S41, S42, S43, S45, S46, S50, S62, S64, S65, S66, S68, S69, S71, S72, S74, S85, S88, S99, S106, S109, S119, S128, S129, S130, W131, S132, S133, S135, S136, S138, S139, S145, S149, S150, S157, S158, S160, S161, S176, S181, S184, S185, S186, S190, S191, S192, S194, S195, S199, S201, S203, S204, S205, S206, S207, S208, S209, S210, S211, S212, S214, S215, S216, S217, S223, S224,

Nu NuR (reactions)—Continued:

S225, S226, S227, T5, T6, T7, T11, T13, T14, T15, T16, T29, T30, T31, T33, T34, T37, T38, T39, T40, T47, T48, T49, T56, T65, T66, T69, T71, T72, T73, T77, T92, T94, T95, T96, T102, V4, V6, V9, V10, V24, V36, W2, W3, W4, W5, W13, W16, W30, W32, W33, W36, W39, W40, W53, W59, W66, W67, W68, W69, W75, W76, W77, W78, W79, W80, W81, W82, W84, W85, W90, W91, W92, W93, W94, W95, W96, W97, W98, W99, W100, W101, W106, W107, W108, W110, W111, W120, W121, W128, W129, W130, W131, W133, W134, W137, W145, W146, W147, Y3, Y4, Y5, Y8, Y9, Z1, Z6, Z9, Z10, Z11.

NuRe (magnetic resonances): A58, A59, B122, B148, H57, L71, N2, N14, P104, R70, S89, S108, S122, S123, W15, Z7.

NuS (spins, states, and wave functions): A84, A92, A93, A100, A108, B131, B135, B136, B138, B149, B251, B255, B266, E16, F20, F25, F26, F27, F39, F41, F80, G61, G107, H10, H18, H184, I19, J39, K13, K49, K105, L37, L56, L59, L101, M11, M69, M151, N3, N6, N7, N13, N14, N33, N34, O20, P3, P4, R13, R37, R75, S3, S134, S219, T32, V7, V10, V28, W61, W139, W142.

NuSt (statistics): A72.

Sd Solid state: G115, K6, K37, K122, N38, O11, S146, W35, W62.

SdCr (crystal structure, including electron, neutron, and x-ray diffraction): B26, D54, G71, G72, K119, H83, H156, J33, K4, L2, L52, L86, L90, L91, N4, N54, Q1, R16, R96, R97, R99, S103, S105, W10, W11, W34, W49, W117, W122, W123, W124, W125, W126.

SdEc (elastic constants): J32.

SdEl (electromagnetic properties): C114, G54, M74, P15, P67, P95, T83, Z12.

SdNu (nuclear properties): B122.

SdSp (spectra): G121, H109, H156, H157, H158, L86, N27, S30, S229, W8.

SdTr (transitions, including phase transitions): A58, A59, C89, C100, C114, E45, H17, K103, L2, L52, M73, M74, P54, P96, Q1, S35, S156, S165, S166, T45, W9, W10, W11, W126, Z12.

Se Isotope separation: A47, A67, B41, C93, C103, C105, C106, C107, C108, D47, D65, D80, E39, E41, E42, F17, F91, G118, G126, H47, H72, H124, K7, K8, K59, L11, L24, L51, M8, P5, P6, P12, R91, S177, T97, U10, W41.

SeAd (adsorption—including chromatography and ion exchange): D48, H48.

SeCf (centrifuging): B190, B191, G127, S19.

SeCh (chemical reaction): B96, B109, B181, C92, D50, L76, R19, T42, T56.

SeDf (diffusion, including thermal diffusion): B54, B55, B56, B69, B70, B96, C59, C70, C71, C90, C94, C95, D8, D16, D49, D50, D67, F92, F93, G111, G112, H122, I32, J37, K60, L23, M27, M28, W12, W42, W70, W119.

SeDs (distillation): B212, C99, D69, D70, D71, D72, F46, F48, H102, R62, W37.

SeEl (electrolysis): A82, B58, B79, B206, B253, C39, C96, D8, E9, E10, E11, H152, H153, H154, H195, K61, L85, M54, M55, M65, N56, O15, O16, P64, P92, S29, S34, T84, T85, T86, V15, W26, W114.

Se—Continued:

- SeEm (electromagnetic methods):** B82, S113.
- SeMs (mass spectrometer and mass spectrograph):** C49, D8, K24, K66, K67, R66, S127, V22, V23, W14.
- So Solubility.**
- SoG (gases in solids):** T8.
- SoH (in H₂O, HDO, and D₂O):** B132, B213, C33, C34, C35, C36, N52.
- SoI (in inorganic solvents):** B254.
- SoO (in organic solvents):** B124, J44.
- Sp Spectra and spectroscopic constants:** F49, P26, S34, T83, W144.
- SpA (atomic—line):** B160, B200, B201, H10, H165, K10, K105, K106, L5, L6, L7, L8, L102, M125, M138, M139, N2, N3, N6, N13, P79, P104, R37, R51, S21, S75, T41.
- SpEl (molecular electronic):** C48, C62, D11, D12, D55, D56, D73, F14, F84, F85, G6, G7, G8, G10, G11, G12, G13, G14, G20, G125, G134, H144, H155, I1, I9, I10, L32, M118, M170, N48, N49, N50, N51, O26, O27, P100, P101, R8, R27, R28, R59, R60, S58.
- SpFl (fluorescence):** B99, B112, B192, G7, G9, G13, K53, R89, S78, S193.
- SpM (microwave):** A69, A79, B15, B52, B53, C154, C155, G53, G81, H118, J14, J23, J24, J25, J36, K38, K51, K82, K83, K84, L6, L64, L92, L99, L108, M71, M124, N26, R7, R10, S100, S101, S114, S115, S116, S187, S188, S189, T4, T41, T78, U9, W46, W50, W51, W52, W55, W56, W63, W64.
- SpVi (vibrational, including Raman):** A23, B5, B6, B7, B8, B9, B12, B13, B14, B29, B58, B59, B92, B93, B94, B95, B109, B242, B265, C43, C44, C78, C79, C118, C132, C134, C135, C136, C137, C138, C139, C141, C142, D1, D26, D28, D29, D30, D31, D34, D35, D51, D52, D53, D61, D62, D68, E1, E3, E4, E5, F18, F19, F36, F45, F70, G19, G21, G22, G40, G82, G121, H12, H13, H26, H27, H67, H82, H83, H84, H85, H86, H87, H88, H89, I190, H91, H92, H97, H98, H99, H100, H101, H109, H157, H158, H163, H200, I8, I12, J34, J36, J45, K46, K50, K52, K78, K90, K93, K94, L9, L13, L34, L40, L42, L48, L49, L50, L63, L74, L75, L77, L78, L86, L94, L95, M2, M3, M17, M18, M19, M25, M64, M91, M92, M93, M94, M112, M122, M123, M146, N9, N27, N32, N36, N37, N44, O24, P1, P52, P67, P69, P71, P78, P81, P84, P88, P89, P90, R11, R16, R42, R43, R45, R85, R98, S18, S33, S59, S70, S84, S87, S91, S94, S95, S96, S97, S98, S111, S124, S163, S221, S229, T3, T9, T18, T24, T51, T59, T60, T75, T100, V5, V12, V37, V39, W8, W9, W10, W11, W47, W104, W105, W140, Z4, Z5, Z8.
- Sr Mass spectroscopy and mass spectrography:** B11, B49, B50, C117, C118, D42, D43, D44, D45, E51, E53, E54, F65, F71, H144, H145, H146, K28, K63, L97, L98, M127, M134, M171, N29, N46, N59, R29, R71, S32, S47, S173, S174, S175, T51, T58, T99.

- St Molecular structure:** A57, A69, B5, B7, B8, B9, B13, B52, B99, B262, C62, C141, D26, D34, D35, D59, D62, G6, G7, G10, G11, G12, G13, G61, H86, H100, H101, I9, K46, L13, L74, L75, L77, L78, L94, L95, M74, M91, M93, M123, N27, P1, P110, S33, S96, S98, S103, S163, S229, T9, T18, W8, W22, W105.
- St A (molecular association):** B228, C89, D68, D72, E46, H112, R98, V39, W117.
- StD (molecular constants—interatomic distances, bond angles, moments of inertia, force constants, and potential functions):** A79, B12, B14, B15, B52, B73, B95, C79, C154, C155, C163, D30, D31, D51, D56, F18, F19, F45, G14, G40, G81, H26, H27, H67, H99, H118, I12, J25, J34, J36, K38, K52, K84, M2, M3, M17, M25, M71, M92, M94, M124, M146, N26, N37, O26, P51, P71, R10, R11, R42, R43, R96, S18, S79, S100, S114, S115, S116, S188, T75, T78, U9, V18, W63, W64, W73, W104, Z5.
- StDi (electron, neutron, and X-ray diffraction):** C163.
- Sy Synthesis and preparation of compounds:** A21, A23, A24, A26, A69, A74, B19, B25, B58, B59, B61, B64, B88, B89, B100, B143, B144, B145, B185, B198, B227, B231, B237, B242, B243, B261, C40, C82, C97, C99, C100, C117, C118, C131, C133, C154, D43, D63, D76, E1, E15, E24, E26, E51, F44, F46, F47, F86, F87, G10, G11, G12, G98, H92, H127, H142, H146, H148, H163, H187, I1, I32, J24, J51, K1, K16, K33, K40, K68, K69, K78, K102, L1, L12, L13, L39, L40, L41, L42, L77, L78, L107, M19, M59, M60, M79, M101, M122, M123, N38, N39, N43, N58, O24, P2, P6, P26, P27, P51, P65, P87, R45, R64, R97, S47, S53, S91, S94, S120, S146, S152, S171, S172, S180, S183, T51, T57, T79, T80, T83, T99, T100, U4, V12, V16, V17, V26, W7, W34, W47, W57, W58, W60, W102, W113, W114, W127.
- Th Thermodynamic and related properties:** G54, K56, S34, W144.
- ThD (diffusion and heat conduction):** B155, G111, G112, I25, I26, I32, M169, T90, T91, U2, W17, W18, W132.
- THF (thermodynamic functions for pure substances and reactions between them—E, H, S, C_v, C_p, F, K, ΔH, ΔS, ΔE, ΔC, ΔF, data of state, and thermal expansion):** B16, B107, B109, B154, B215, C100, C133, D30, D31, D40, D65, E45, E46, F18, F19, F65, G119, G128, H42, J29, J39, J40, K6, K21, K22, K37, K102, K103, L63, L94, M25, N4, O22, P67, P69, S30, S35, S146, S147, S156, S166, S197, U10, V5, V17, W47, W132, W143, Z8.
- ThP (phase equilibria—boiling points, melting points, triple points, heats of transition, critical constants, and vapor pressures):** A21, A58, A90, B58, B59, C32, C89, C99, C100, C117, E1, E24, E45, F66, F67, F87, G98, G115, H17, H35, H112, H132, H133, J51, K37, K68, K103, L2, L42, M60, P26, P27, P103, P109, S35, S53, S146, S156, S182, S183, T26, U5, U10, V13, W132.
- ThS (statistical mechanics and statistical thermodynamics):** B154.
- ThSo (properties of solutions—activities, fugacities, pH, vapor pressures, heats of solution and dilution, and colligative properties):** A90, B214, C32, H45, N47, N53, S218.

5. Compound Index

This index will be useful in locating references dealing with a particular deuterium or tritium compound. Tritium compounds are designated by a "-t" following the compound name. Each entry in the index contains one or more letter codes and a series of letter-number symbols indicating, respectively, the subject content and the location of the references in the bibliography. A description of the coding system may be found in the Introduction.

Acenaphthene (C₁₂H₁₀) **EqL**:S80; **InKi**:S80; **KiL**:S80.
 Acetaldehyde (C₂H₄O) **AnMs**:B218; **InKi**:C131; **KiG**:W21, Z2; **KiP**:B123, Z2, Z3; **SpVi**:P69; **Sy**:C131; **ThF**:P69.
 Acetaldehyde nitrophenyl hydrazone (C₈H₉N₃O₂) **InKi**:C131; **Sy**:C131.
 Acetamide (C₂H₅NO) **SpVi**:L48.
 Acetate ion-t (C₂H₃O₂-t) **InBi**:B22.
 Acetic acid (C₂H₄O₂) **AnDn**:B243; **BiC**:B144; **EqH**:L73; **EqL**:B243, C97, K42, L107; **InBi**:L107; **KiH**:L73; **KiL**:M115; **KiP**:C96; **SeEl**:C96; **SpVi**:H85; **Sy**:B144, B243, C97, L107.
 Acetic acid, Salts of **EqL**:M116; **KiL**:M115, M116.
 Acetic acid, sodium salt of (C₂H₃O₂Na) **EqL**:S80; **InBi**:F30; **InKi**:S80; **KiB**:024s; **KiL**:S80; **SpVi**:L48; **Sy**:O24s.
 Acetic acid-t, sodium salt of (C₂H₃O₂Na-t) **AnC**:E14; **BiZ**:E14.
 Acetone (C₃H₆O) **AnMs**:H42, K16, R71; **EiRf**:C117; **EqH**:K16; **EqL**:F43; **InKi**:F43; **KiH**:K16; **KiP**:B78, M29, T88, T89; **Me**:C117; **SpVi**:H85; **Sr**:C117, R71; **Sy**:C117, K16, T57; **ThF**:H42; **ThP**:C32, C117; **ThSo**:C32.
 Acetone dicarboxylic acid (C₅H₈O₅) **InBi**:K76; **KiB**:K76.
 Acetonitrile (C₂H₃N) **SpM**:K38, T78; **StD**:K38, T78.
 Acetophenone (C₈H₈O) **EqL**:S80; **InKi**:S80; **KiL**:S80.
 Acetoxy etiocholanal (C₂₁H₃₄O₃) **ElRo**:K68; **Sy**:K68; **ThP**:K68.
 Acetoxy etiocholanone (C₂₁H₃₂O₃) **ElRo**:K68; **Sy**:K68; **ThP**:K68.
 Acetyl acetone (C₅H₈O₂) **EqL**:N25, S94; **InSt**:N25; **SpVi**:S94; **Sy**:S94.
 Acetyl alanine (C₅H₉NO₃) **InBi**:B145; **KiB**:B145; **Sy**:B145.
 Acetyl aminobenzoic acid (C₉H₉NO₃) **InBi**:B145; **KiB**:B145; **Sy**:B145.
 Acetylene (C₂H₂) **AdG**:P23; **AnMs**:M133; **ElGd**:H155; **IsSp**:D27, D28, H24, M170, S221, V1; **KiG**:F73, H155, J50; **KiH**:P23; **SpEl**:H155, M170; **SpM**:T4; **SpVi**:D28, H13, H85, K52, P71, S18, S59, S221, V17; **Sr**:H146; **StD**:K52, P71, S18; **Sy**:B25, J51, L72, L78, V12.
 Acetylene dibromide (C₂H₂Br₂) **AnSp**:J51; **IsSp**:S221; **SpVi**:H82, H92, S221, V12; **Sy**:H92, J51, V12; **ThP**:J51.
 Acetylene dichloride (C₂H₂Cl₂) **EqG**:B95; **IsSp**:H13; **SpVi**:B93, B95, H13, V5; **StD**:B95; **Sy**:L41; **ThF**:V5.
 Acetyl glutamic acid (C₇H₁₁NO₃) **InBi**:B145; **KiB**:B145; **Sy**:B145.
 Acetyl glycine (C₄H₇NO₃) **InBi**:B145; **KiB**:B145; **Sy**:B145.

Acetyl leucine (C₈H₁₅NO₃) **InBi**:B145; **KiB**:B145; **Sy**:B145.
 Acetyl sarcosine (C₅H₉NO₃) **InBi**:B145; **KiB**:B145; **Sy**:B145.
 Adrenaline (C₉H₁₃NO₃) **InBi**:G135; **KiB**:G135.
 Alanine (C₃H₇NO₂) **AnCl**:K85; **AnDn**:K85; **InBi**:A80; **KiB**:A80; K85; **SpVi**:G82.
 Allene (C₃H₄) **IsSp**:L95; **SpVi**:L95; **St**:L95.
 Allyl benzene (C₉H₁₀) **EqL**:H127; **InSt**:H127; **Sy**:H127.
 Allylene (C₃H₄) **SpVi**:H99, J34, L42, M91, Z8; **St**:M91; **StD**:H99, J34; **Sy**:L42; **ThF**:Z8; **ThP**:L42.
 Allyl phenol (C₉H₁₀O) **InKi**:F42.
 Allyl phenyl ether (C₉H₁₀O) **InKi**:F42, F44s; **Sy**:F44.
 Aluminum **SoI**:B249.
 Aluminum bromide **EqL**:P65; **InKi**:P65; **KiL**:P65; **Sy**:P65.
 Aluminum bromide, basic (Al(OH)Br₂) **EqL**:P65; **InKi**:P65, W1; **KiL**:P65, W1; **Sy**:P65.
 Aluminum ethoxide (C₆H₁₅O₃Al) **Sy**:C40.
 Aluminum hydride (AlH) **SpEl**:N48, N49, N50, N51.
 Aluminum oxide **EqH**:E47, P13; **InKi**:E47, P13; **KiH**:P13.
 Amino acetic acid. See Glycine.
 Amino acids **Ge**:H96; **InBi**:H96, U11; **KiB**:H96, U11; **SpVi**:L49.
 Amino ethanol (C₂H₇NO) **KiB**:V26; **Sy**:V26.
 Amino phenylbutyric acid (C₁₀H₁₃NO₂) **InBi**:B145; **KiB**:B145; **Sy**:B145.
 Ammonia (NH₃) **AdG**:T23; **AnMs**:T61; **AnSp**:S159, W52; **Eq**:K56; **EqG**:S159, W50; **EqH**:K31, K32, L41, S118, T23, W52; **EqL**:S198; **EqL**:B232, B262s, H112, S80s, S81s, S82, S83s; **InKi**:S80s; **IsSp**:D29, E3, H13; **KiH**:K31, K32, L3, S118, W52; **KiL**:S80s, S81s, S83s; **Me**:K56; **SdCr**:R16; **SdSp**:H157, H158; **SpEl**:C48; **SpM**:L99, L108, W50, W52, W55, W56; **SpVi**:B265, D29, E3, H13, H157, H158, L34, R16, T18; **Sr**:N29; **St**:T18; **StA**:H112; **ThP**:H112.
 Ammonia-t (NH₃-t) **SpVi**:T18; **St**:T18.
 Ammonium bromide (NH₄Br) **SdCr**:L52, W11; **SdTr**:L52, S165, W11; **SpVi**:W11.
 Ammonium chloride (NH₄Cl) **SdCr**:G71, G72, W10; **SdTr**:S166, T45, W9, W10; **SpVi**:W9, W10; **ThF**:S166; **ThSo**:N47.
 Ammonium halides **SdCr**:H156; **SdSp**:H156.
 Ammonium hydroxide (NH₄OH) **EqI**:S198.
 Ammonium ion (NH₄⁺) **EqI**:B232, S198; **KiI**:B232.
 Ammonium nitrate (NH₄NO₃) **IsKi**:F68.
 Ammonium phosphate, dihydrogen (NH₄H₂PO₄) **SdCr**:W126; **SdTr**:M73, W126.
 Amyl alcohol (C₅H₁₁OH) **EqL**:H127; **InSt**:H127; **Sy**:H127.
 Amylene (C₅H₁₀) **EqH**:B63; **Me**:B63.
 Androstenediol acetate benzoate (C₂₆H₃₀O₅) **ElRo**:F87; **Sy**:F87; **ThP**:F87.
 Anethole (C₁₀H₁₂O) **EqL**:Y13; **InKi**:Y13; **KiL**:Y13.
 Aniline hydrochloride (C₆H₇N·HCl) **AnMs**:A23; **Eq**:O11; **Sd**:O11; **SpVi**:A23; **Sy**:A23.
 Anisole (C₇H₈O) **EqG**:B225; **EqL**:B231; **InKi**:B225, B231; **SpVi**:T60; **Sy**:B231.

- Anthracene (C₁₂H₁₀) **KiG**:P110; **SpFl**:R89; **St**:P110.
- Argon **AnC**:E10, E12; **MeDf**:W17; **ThD**:W17.
- Arsine (AsH₃) **EiD**:L92; **IsSp**:H13; **SpM**:L46; **SpVi**:H13, M2, M3, T18; **St**:T18; **StD**:M2, M3.
- Arsine-t (AsH₃-t) **SpVi**:T18; **St**:T18.
- Aspartic acid (C₄H₇NO₄) **AnCl**:K85; **AnDn**:K85; **KiB**:K85.
- Behenic acid (C₂₂H₄₄O₂) **InBi**:B88; **KiB**:B88; **Sy**:B88.
- Benzene (C₆H₆) **AdG**:B16; **AnMs**:A23; **AnSp**:B100, T103; **EqG**:P110; **EqH**:B19, B63; **EqL**:B100, Y12s; **InKi**:M164, T103; **InSo**:B124s, J44s; **IsSp**:G14, H13; **KiG**:P110; **KiH**:B16, B19, T103; **KiL**:B100, Y12s; **KiR**:G80, M164; **Me**:B63; **MeDf**:G100; **NuS**:G61; **SoO**:B124s, J44s; **SpEl**:G6, G7, G8, G10, G11, G12, G13, G14, I9, I10; **SpFl**:B99, G7, G9, G13, **SpVi**:A23, B5, B6, B7, B8, B9, B12, C142, H13, H100, H101, I8, M122, P84, T60; **St**:B5, B7, B8, B9, B99, G6, G7, G10, G11, G12, G13, G61, H100, H101, I9, P110; **StD**:B12, G14; **Sy**:A23, B19, B100, G10, G11, G12, H163, M122, W57, W58; **ThF**:B16.
- Benzene-t (C₆H₆-t) **InKi**:M99, M101; **IsKi**:M101; **KiL**:M101; **Sy**:M101.
- Benzene hexachloride (C₆H₆Cl₆) **AnSp**:T79; **In**:T79; **Sy**:T79.
- Benzene phosphinic acid (C₆H₇PO₂) **SpVi**:D1.
- Benzene phosphonic acid (C₆H₇PO₃) **SpVi**:D1.
- Benzoic acid (C₇H₆O₂) **KiR**:B197; **SpVi**:T60; **Sy**:W58.
- Benzoquinhydrone (C₁₂H₁₀O₄) **EqG**:G97; **InSt**:G97; **KiG**:B228; **StA**:B228.
- Benzoyl peroxide (C₁₄H₁₀O₄) **EqL**:Y12s; **KiL**:Y12s.
- Benzylmalonic acid (C₁₀H₁₀O₄) **ElRo**:I34; **Sy**:I34.
- Benzylmalonic acid, bornyl dimethylamine acid salt of (C₂₂H₃₃NO₄) **ElRo**:I34; **Sy**:I34.
- Benzylmalonic acid, brucine acid salt of (C₃₃H₃₆N₂O₈) **ElRo**:I34; **Sy**:I34.
- Benzylmalonic acid, nicotine acid salt of (C₂₀H₂₄N₂O₄) **ElRo**:I34; **Sy**:I34.
- Benzylpenicillin, disodium salt of (C₁₆H₁₈N₂O₅SN₂) **Sy**:K1.
- Benzyl pencilloic acid, methyl ester of (C₁₆H₂₂N₂O₃S) **Eq**:M158; **Ge**:M158.
- Borine carbonyl (BH₃CO) **KiG**:B263; **SpM**:G81; **StD**:G81.
- Boron hydride (B₂H₆) **AnMs**:N57; **AnSp**:B34; **AnTh**:M82; **EqG**:M82; **EqL**:B262; **IsSp**:L94; **Ki**:B34; **KiG**:M82; **SpVi**:L94, W47; **Sr**:D45; **St**:B262, L94; **Sy**:N58, W47; **ThF**:L94, W47.
- Bromide ion **EqH**:A36; **EqI**:A36; **KiR**:A36.
- Bromo acetoxy etiocholanone (C₂₁H₃₁O₃Br) **ElRo**:K68; **Sy**:K68; **ThP**:K68.
- Bromobenzene (C₆H₅Br) **AnDn**:F75; **AnSp**:B100; **EqL**:B100; **Sy**:B100.
- Bromobenzene-t (C₆H₅Br-t) **InKi**:M101; **IsKi**:M101; **KiL**:M101; **Sy**:M101.
- Bromodichloromethane (CHCl₂Br) **EqL**:S91; **KiL**:S91; **SpVi**:P78, S91; **Sy**:S91.
- Bromoethylbenzene (C₈H₉Br) **InKi**:S120; **KiL**:S120; **Sy**:S120.
- Bromoform (CHBr₃) **AnSp**:S73; **EqG**:S73; **EqL**:S73; **IsSp**:H13; **KiG**:S73; **KiL**:S73; **SpVi**:D26, F19, H13, M92, M94, R85; **St**:D26; **StD**:F19, M92, M94; **ThF**:F19.
- Bromopregnanedione (C₂₁H₃₁O₂Br) **ElRo**:K68; **Sy**:K68; **ThP**:K68.
- Butadiene (C₄H₆) **InSo**:B124s; **SoO**:B124s.
- Butane (C₄H₁₀) **AdG**:H29; **AnMs**:S174; **EqH**:A68, B57, H119, W6; **EqL**:O25; **InKi**:A68, H29, H188, P65, W1, W6; **InSo**:B124s; **IsMs**:S174; **KiH**:A68, B57, H29, H119; **KiL**:P65, W1; **KiR**:H148; **SoO**:B124s; **SpVi**:C118; **Sr**:C118, S174, S175; **Sy**:C118, H148, P65, W7.
- Butane-t (C₄H₁₀-t) **AnC**:G57, G58, R54.
- 2,3-Butanedione dioxime (C₄H₈N₂O₂) **InSt**:V39; **SpVi**:V39; **StA**:V39.
- 1,2-bis (2,3-Butanedione dioxime-N,N') nickel (II). See Nickel dimethyl glyoxime.
- Butene. See Butylene.
- Butene-t. See Butylene-t.
- Butenes. See Butylenes.
- Butyl alcohol (C₄H₉OH) **InKi**:K41s.
- Butylene (C₄H₈) **AnMs**:D46; **AnMs**:D46; **EqG**:D46; **EqH**:A68, T25; **InKi**:A68, D3; **InSo**:B124s; **KiG**:D3, D46; **KiH**:A68; **KiL**:S180; **SoO**:B124s; **Sy**:S180.
- Butylenes **EqL**:P65; **KiL**:P65; **Sy**:P65.
- Butyl iodide (C₄H₉I) **KiR**:S196.
- Butylmalonic acid (C₇H₁₂O₄) **ElRo**:I34; **Sx**:I34.
- Butylmalonic acid, bornyldimethylamine acid salt of (C₁₉H₂₅NO₄) **ElRo**:I34; **Sy**:I34.
- Butyric acid (C₄H₈O₂) **ElRo**:I34; **InKi**:S77; **KiG**:S77; **Sy**:I34.
- Cadmium iodide **EcP**:N53; **ThSo**:N47, N53.
- Cadmium sulfate **EqH**:B213; **SoH**:B213.
- Calcium **Sy**:I1.
- Calcium hydride (CaH) **SpEl**:N48.
- Calcium hydroxide (Ca(OH)₂) **EqL**:G55s, L39; **Sy**:I1, L39, W58.
- Caproic acid (C₆H₁₂O₂) **Sy**:I34.
- Caprolactam (C₆H₁₁NO) **SpVi**:L48.
- Caprylic acid (C₈H₁₆O₂) **KiR**:H142; **Sy**:H142.
- Carbohydrates **InBi**:S168; **KiB**:S168.
- Carbon **AdG**:B219.
- Carbon dioxide **AdG**:N43; **ElT**:I27; **KiH**:N43; **KiR**:G15; **MeAc**:I27; **MeDf**:W17; **Sy**:N43; **ThD**:W17.
- Carbon monoxide **AdG**:L106, N43; **KiH**:L106, N43; **Sy**:B58, N43.
- Cellulose ((C₆H₁₀O₅)_x) **AnDn**:F77; **EqH**:F76, F77, R90; **IsSp**:R90; **KiH**:F77.
- Cellulose methyl ether (C₇H₁₂O₅) **AnDn**:A96; **MeD**:A96; **MeV**:A96.
- Cerium **AdG**:V20; **EqH**:V20.
- Cerium hydride (CeH) **EqH**:V16, V17; **KiH**:V16, V17; **Sy**:V16, V17; **ThF**:V17.
- Cesium nitrate **SoH**:N52.
- Charcoal **AdG**:K21, K22.
- Chloral (C₂HCl₃O) **InKi**:L21; **KiL**:L21.
- Chloramine-t (C₇H₇NaNO₂SCI) **InBi**:K76; **KiB**:K76.
- Chloracetylene (C₂HCl) **SpM**:W63; **SpVi**:R43; **StD**:R43, W63.
- Chloro dibromo methane (CHClBr₂) **EqL**:S91; **KiL**:S91; **SpVi**:P81, S91; **Sy**:S91.

- Chloroform (CHCl₃) **AnSp**:S73; **ElRf**:E1; **EqG**:S73; **EqL**:S73; **IsKi**:N42; **IsMs**:D42; **IsSp**:E3, H13; **KiG**:S73; **KiL**:S73; **KiP**:N42; **MeD**:E1; **SpM**:U9; **SpVi**:D26, E1, E3, H13, M25, S96, Z4, Z5; **Sr**:D42; **St**:D26, S96; **StD**:M25, U9, Z5; **Sy**:B185, E1; **ThF**:M25; **ThP**:E1.
- Chlorosulfonic acid (HSO₃Cl) **InKi**:G77; **KiL**:G77.
- Chloroxylenol (C₈H₉ClO) **EqL**:T93.
- Cholestenone (C₂₇H₄₄O) **ElRo**:F87; **InBi**:A81; **KiB**:A81; **Sy**:B64, F87; **ThP**:F87.
- Cholesterol (C₂₇H₄₆O) **BiC**:B144; **ElRo**:F87; **InBi**:G75, P86; **KiB**:B143, G75; **KiR**:B197; **Sy**:B64, B143, B144, F87; **ThP**:F87.
- Cholesterol-t (C₂₇H₄₆O-t) **AnC**:B111; **BiC**:B110, K97; **KiB**:B110.
- Choline (C₃H₁₅NO₂) **InBi**:C111; S112, V25; **KiB**:C111, S112, V25.
- CH radical **SpEl**:F14.
- Chromic oxide **EqH**:B19; **KiH**:B19; **Sy**:B19.
- Citric acid (C₆H₈O₇) **AnDn**:M60; **ElRo**:M59, M60; **InBi**:M61; **InSt**:M59; **KiB**:M61; **Sy**:M59, M60; **ThP**:M60.
- Cobalt, complex compounds of **KiB**:S93; **KiL**:S93.
- Copper **EcO**:B249; **SoI**:B249.
- Copper hydride (CuH) **ElGd**:R28; **EqH**:R28; **KiH**:W34; **SdCr**:W34; **SpEl**:N51, R27, R28; **Sy**:W34.
- Creatine (C₄H₉N₃O₂) **InBi**:C111, V25; **KiB**:C111, V25.
- Creatinine (C₄H₇N₃O) **InBi**:S112; **KiB**:S112.
- Cresol (C₇H₈O) **EqL**:T93.
- Crotonic acid (C₄H₆O₂) **KiR**:B197.
- Cuprous chloride **AdG**:I22; **IsKi**:I22; **KiH**:I22.
- Cyanoacetylene (C₃HN) **SpM**:W64; **StD**:W64.
- Cyanogen chloride (ClCN) **IsSp**:R44.
- Cyanuric acid ((HCNO)₃) **SpVi**:N37; **StD**:N37.
- 1, 2-Cycloheptanedione dioxime (C₇H₁₂N₂O₂) **InSt**:V39; **SpVi**:V39; **StA**:V39.
- 1, 2-bis (1, 2-Cycloheptanedione dioxime-N, N') nickel (C₁₄H₂₂N₄O₄Ni) **InSt**:V39; **SpVi**:V39; **StA**:V39.
- Cyclohexadiene (C₆H₈) **EqH**:B63; **Me**:B63.
- Cyclohexane (C₆H₁₂) **InSo**:B124s; **KiR**:B198; **SoO**:B124s; **Sy**:B198.
- Cyclohexane carboxylic acid. See Hexahydrobenzoic acid.
- 1, 2-Cyclohexanedione dioxime (C₆H₁₀N₂O₂) **InSt**:V39; **SpVi**:V39; **StA**:V39.
- 1, 2-bis (1, 2-Cyclohexanedione dioxime-N, N') nickel (C₁₂H₁₈N₄O₄Ni) **InSt**:V39; **SpVi**:V39; **StA**:V39.
- Cyclohexanone (C₆H₁₀O) **EqG**:N24; **InSt**:N24.
- Cyclohexene (C₆H₁₀) **EqH**:B63; **KiR**:B198; **Me**:B63; **Sy**:B198.
- Cyclooctatetraene (C₈H₈) **SpVi**:L77, L78; **St**:L77, L78; **Sy**:L77, L78.
- Cyclopentane (C₅H₁₀) **KiR**:B198; **SpVi**:M123; **St**:M123; **Sy**:B198, M123.
- Desthiobenzylpenicillin (C₁₆H₂₀N₂O₄) **Sy**:K10.
- Diamino diphenyl (C₁₂H₁₂N₂) **EqG**:B225; **InKi**:B225.
- Diazomethane (CH₂N₂) **SpVi**:C141; **St**:C141; **Sy**:B58.
- Diazonitrobenzene chloride (C₆H₄N₃O₂Cl) **EqL**:A22; **InKi**:A22.
- Diborane. See Boron hydride.
- Dibromobenzene (C₆H₄Br₂) **AnSp**:B100; **EqL**:B100; **Sy**:B100.
- Dibromo chloro methane. See Chloro dibromo methane.
- Dibromoethane (C₂H₄Br₂) **AnSp**:J51; **ElRf**:V13; **InSt**:H83, H84; **IsSp**:H84; **IsTh**:D40, W143; **MeD**:V13; **SdCr**:H83; **SdSp**:N27, S229; **SpVi**:H83, H84, H86, N27, S229; **St**:H86, N27, S229; **Sy**:J51; **ThF**:D40, W143; **ThP**:J51, V13.
- Dibromoethylene. See Acetylene dibromide.
- Dibromomethane. See Methylene bromide.
- Dichloro bromo methane. See Bromo dichloro methane.
- Dichloro diethyl sulfide (C₄H₈Cl₂S) **Sy**:B25.
- Dichloroethylene. See Acetylene dichloride.
- Dichloromethane. See Methylene chloride.
- Dichloropropene. See Dichloropropylene.
- Dichloropropylene (C₃H₄Cl₂) **InSt**:B94; **SpVi**:B94.
- Diethylamine (C₄H₁₁N) **EqL**:K42.
- Dimethoxysuccinamide (C₆H₁₂N₂O₄) **InBi**:S170; **KiB**:S170.
- Dimethylaminoethanol (C₄H₁₁NO) **KiB**:V26; **Sy**:V26.
- Dimethylantracene (C₁₆H₁₄) **InKi**:H187; **Sy**:H187.
- Dimethylantraquinone (C₁₆H₁₂O₂) **InKi**:H187; **Sy**:H187.
- Dimethylenegluconic acid (C₈H₁₂O₅) **KiR**:B197.
- Dimethyl oxalate (C₄H₆O₄) **Sy**:B58.
- Dinitrobenzene (C₆H₄N₂O₄) **EqL**:S80; **InKi**:S80; **KiL**:S80.
- Dinitrotoluene-t (C₇H₆N₂O₄-t) **InKi**:M100; **KiL**:M100.
- Diphenylamine (C₁₂H₁₁N) **EqL**:S80; **InKi**:S80; **KiL**:S80.
- Diphenylmethane (C₁₃H₁₂) **EqL**:S80; **InKi**:S80; **KiL**:S80.
- Disilane. See Silicoethane.
- Distyrene (C₁₆H₁₄) **InKi**:C60.
- Dodecane (C₁₂H₂₆) **InKi**:G77; **KiL**:G77.
- Dodecylamine (C₁₂H₂₇N) **KiR**:B197.
- Elaidic acid (C₁₈H₃₄O₂) **BiZ**:C115.
- Enzymes **BiB**:E48; **BiC**:E48; **KiB**:E48, S93; **KiL**:S93.
- Ergosterol (C₂₈H₄₄O) **KiB**:O24; **SpVi**:O24; **Sy**:B64, O24.
- Erucic acid (C₂₂H₄₂O₂) **InBi**:B88; **KiB**:B88; **Sy**:B88.
- Estrone acetate **ElRo**:P26; **Sp**:P26; **Sy**:P26; **ThP**:P26.
- Ethane (C₂H₆) **AnMs**:F69, S174, T99; **AnSp**:T103; **EqH**:W6; **InKi**:T103, W6; **InSt**:T99; **IsMs**:S175, T99; **IsSp**:E3, H13; **KiG**:T87, W20; **KiH**:T103; **SpVi**:B14, E3, H13, H26, H27, H85, H86, H90, P1, P90, R45, S97, S98; **Sr**:D45, H146, S47, S174, S175, T99; **St**:H86, P1, S33, S98; **StD**:B14, H26, H27; **Sy**:R45, S47, T99, W7.
- Ethanesulfonic acid (C₂H₆SO₃) **InKi**:G77; **KiL**:G77.
- Ether (C₄H₁₀O) **InBi**:B88s; **KiB**:B88s; **Sy**:B88s.
- Ethoxynaphthalene (C₁₂H₁₂O) **EqL**:T93.
- Ethyl acetamide (C₄H₉NO) **SpVi**:L48.
- Ethyl acetate (C₄H₈O₂) **KiL**:M115.
- Ethyl acetoacetate (C₆H₁₀O₃) **EqL**:S94; **SpVi**:S94; **Sy**:S94.
- Ethyl alcohol (C₂H₅OH) **AnC**:E10, E12; **EqG**:B225; **EqL**:B226, B229, K42, P43s, S80s, T93s, Y12s; **InKi**:B225, C60s, C131, R30, R31, S80s, S120s; **InSt**:M117s; **IsKi**:R53s; **KiG**:M117s; **KiL**:S80s, S120s, Y12s; **MeDf**:G100; **Sy**:C131, S38, S120s.
- Ethyl alcohol-t (C₂H₅OH-t) **InKi**:M102; **KiL**:M102; **Sy**:W113.
- Ethyl benzamide (C₉H₁₁NO) **SpVi**:L48.

- Ethyl benzene (C₈H₁₀) **ElRo**:E24; **Sy**:E24; **ThP**:E24.
- Ethylbromide (C₂H₅Br) **EqG**:P44; **KiG**:P44; **MeDf**:G100; **SpVi**:L13; **St**:L13, **Sy**:C131, L13.
- Ethyl dinitrobenzoate (C₉H₈N₂O₆) **InKi**:C131; **Sy**:C131.
- Ethylene (C₂H₄) **AdG**:P23; **AnMs**:T98, T101; **AnSp**:B29; **Eq**:S34; **EqH**:A68, K80, K81, T101; **Ge**:S34; **InKi**:A68; **Is**:S34; **IsSp**:E3, H13, S221; **IsTh**:K102; **Ki**:S34; **KiG**:J50; **KiH**:A68, P23, T98, T101, T103; **SdTr**:K103; **SpVi**:B29, C44, C138, C139, E3, H13, H85, H87, K46, L9, S59, S221, T75; **Sr**:E51; **St**:K46; **StD**:T75; **Sy**:B25, K102, R45; **Th**:S34; **ThF**:K102, K103; **ThP**:K103.
- Ethylene oxide (C₂H₄O) **EID**:C155; **SpM**:C154, C155; **StD**:C154, C155; **Sy**:C154.
- Ethylene sulfide (C₂H₄S) **EID**:C155; **SpM**:C155; **StD**:C155.
- Ethyl iodide (C₂H₅I) **KiG**:J50; **KiR**:S196.
- Ethyl malonic acid (C₅H₈O₄) **ElRo**:I34; **Sy**:I34.
- Ethyl malonic acid, brucine acid salt of (C₂₈H₃₄N₂O₈) **ElRo**:I34; **Sy**:I34.
- Ethyl radical (C₂H₅) **EgG**:V34; **KiG**:J50, V34, W87.
- Fats **InBi**:B86, B87.
- Fatty acids **KiB**:B143; **Sy**:B143.
- Fenchol. See Fenchyl alcohol.
- Fenchyl alcohol (C₁₀H₁₇OH) **InKi**:D64.
- Ferrie oxide gel **AdG**:B100.
- Fluorene (C₁₃H₁₀) **EqL**:S80; **InKi**:S80; **KiL**:S80.
- Fluorobenzene (C₆H₅F) T60.
- Fluoroform (CHF₃) **SpVi**:D30, D31; **StD**:D30, D31; **ThF**:D30, D31.
- Fluorotoluene (C₇H₇F) **AnDn**:F75.
- Formaldehyde (CH₂O) **AnSp**:B29; **IsSp**:H13; **SpFl**:B192; **SpVi**:B29, H13, H85, M146; **StD**:M146.
- Formic acid (CH₂O₂) **IsSp**:S221; **SpFl**:S193; **SpVi**:F45, H85, S221, W104, W105; **St**:W105; **StD**:F45, W104.
- Formic acid, sodium salt of (CHO₂Na) **EqL**:S80; **InKi**:L25, S80; **KiL**:L25, S80.
- Fructose (C₆H₁₂O₆) **EqL**:G83, G84; **InKi**:G83, G84.
- Fumaric acid (C₄H₄O₄) **InBi**:F55; **InKi**:W54; **KiB**:F10, F55; W54; **KiH**:F10.
- Gadolinium hydride (GdH₂) **ElMg**:T83; **ElMn**:T83; **EqH**:V16; **KiH**:V16; **SdEl**:T83; **Sp**:T83; **Sy**:T83, V16.
- Germanium hydride (GeH₄) **SpVi**:T18; **St**:T18.
- Germanium hydride-t (GeH₄-t) **SpVi**:T18; **St**:T18.
- Glucose (C₆H₁₂O₆) **ElRo**:S148; **EqL**:G83, G84, S148; **InKi**:G83, G84, T74; **KiL**:S144.
- Glutamic acid (C₅H₉NO₄) **AnCl**:K85; **AnDn**:K85; **InBi**:K72, K74, K75, K77, U12; **KiB**:K73, K74, K75, K77, K85, U120.
- Glutamic acid hydrochloride (C₅H₉O₄·HCl) **InBi**:K76; **KiB**:K76.
- Glycerol (C₃H₈O₃) **BiZ**:C115; **InBi**:B89, B90, F13; **Sy**:B89.
- Glycine (C₂H₅NO₂) **AnCl**:K85; **AnDn**:K85; **KiB**:K85, S152; **SpVi**:G82; **Sy**:S152.
- Glycogen ((C₆H₁₀O₅)_x) **InBi**:G75; **KiB**:G75.
- Gold hydride (AuH) **SpEl**:N51.
- Guanidinium ion (CH₅N₃⁺) **IsSp**:H13; **SpVi**:H13.
- Helium **ThD**:M169.
- Heptane (C₇H₁₆) **InKi**:G77; **InSo**:B124s; **KiL**:G77; **SoO**:B124s.
- Heptylene (C₇H₁₄) **InSo**:B124s; **SoO**:B124s.
- Hexadiene (C₆H₁₀) **InSo**:B124s; **SoO**:B124s.
- Hexahydrobenzoic acid (C₇H₁₂O₂) **KiR**:B198; **Sy**:B198.
- Hexahydrocymene (C₁₀H₂₀) **ElRo**:A21, A24; **EqL**:A21; **MeD**:A21; **Sy**:A21, A24; **ThP**:A21.
- Hexamethylene diamine (C₆H₁₆N₂) **KiR**:B197.
- Hexane (C₆H₁₄) **InKi**:G77; **KiL**:G77.
- Hexaphenylethane (C₃₆H₃₀) **EqL**:F43; **InKi**:F43.
- Hexestrol-t (C₁₈H₂₂O₂-t) **Sy**:W102.
- Hydrazine (N₂H₄) **SdSp**:W8; **SpVi**:W8; **St**:W8; **Sy**:B261.
- Hydrazoic acid (N₃H) **EID**:A69; **SpM**:A69; **St**:A69; **Sy**:A69.
- Hydrides, diatomic **SpVi**:C79; **StD**:C79.
- Hydriodic acid (HI) **EID**:P54; **EqG**:B107, B109, B215; **IsKi**:B215, N41; **IsSp**:B109; **KiG**:B215, N41; **SdTr**:C100, P54; **SeCh**:B109; **SeDf**:C90; **SpVi**:B109; **Sy**:C100; **ThF**:B107, B109, B215, C100; **ThP**:C100.
- Hydriodic acid-t (HI-t) **EqG**:B107; **ThF**:B107.
- Hydrobromic acid (HBr) **EID**:P95, P96; **EqG**:P44; **EqL**:P65, S82; **InKi**:P65; **IsEl**:P96; **IsTh**:C89; **KiG**:P44; **KiL**:P65; **SdEl**:P95; **SdTr**:C89, C100, P96; **SeDf**:C90; **SpVi**:V12; **StA**:C89; **Sy**:C100, J51s, P65, V12, W57; **ThF**:C100; **ThP**:C89, C100.
- Hydrobromic acid-t (HBr-t) **EqG**:B107; **ThF**:B107.
- Hydrocarbons **EqH**:T50; **Sy**:K33.
- Hydrochloric acid (HCl) **AdG**:I22; **An**:T64s; **AnMs**:T6z; **EcC**:F79, G39; **EcO**:B254s; **EcPC**:I01, H45; **EID**:C114; **EqH**:A36; **EqI**:A36; **EqL**:H44, Y10, Y11, Y13; **InKi**:N10s, T64s, Y10, Y11, Y13; **IsKi**:N42; **KiH**:C101, I22; **KiL**:H44, Y10, Y11, Y13; **KiP**:N42; **KiR**:A36; **SdEl**:C114; **SdSp**:H109; **SdTr**:C100, C114; **SeDf**:C90; **SoI**:B254s; **SpVi**:G82s, H109, L34; **Sy**:C100, I34, W57; **ThF**:C100; **ThP**:C100; **ThSo**:H45.
- Hydrochloric acid-t (HCl-t) **EqG**:B107; **ThF**:B107.
- Hydrocinnamic acid (C₉H₁₀O₂) **EqL**:H127; **InSt**:H127; **Sy**:H127.
- Hydrocinnamic alcohol (C₉H₁₁OH) **EqL**:H127; **InSt**:H127; **Sy**:H127.
- Hydrocyanic acid (HCN) **EID**:H200; **IsSp**:H13; **SpM**:N26, S115, W46; **SpVi**:H13, H200, K90, R42; **StD**:N26, S115, R42.
- Hydrofluoric acid (HF) **EqL**:H112; **SpVi**:T3; **StA**:H112; **ThP**:H112.
- Hydrofluoric acid-t (HF-t) **EqG**:B107; **ThF**:B107.
- Hydrogen (H₂) **AdG**:B16, B17, D65, E28, H48, H111, K17, K21, K22, K23, K108, K109, L106, M7, P23, R91, S8, T24, V20; **BiC**:P72; **EcO**:C39, P92; **EcP**:D65, H152, R91; **El**:O22; **EID**:I31; **ElGd**:B51, D66, G51, H165, M171; **ElMg**:R10; **ElP**:H50, I21, O22; **ElRf**:I21; **ElSc**:I21; **EIT**:B148, I27, R70; **Eq**:H164, S34, U10; **EqG**:B18, B109, B215, D41, F29, F65, J39, M82, M163, S44, S197, V34, W50, W86; **EqH**:A36, B19, B150, F29, H135, H136, K16, K30, K31, K32, K109, L3, L73, M7, S118, T24, T25, T50, T101, V20, W52, W132; **EqL**:A36; **EqL**:S197; **In**:M72, M140; **InBi**:B88, K86, R24, S26, S63; **InKi**:B42, B150, R23; **InSp**:M136; **InSt**:P72; **Is**:S34; **IsKi**:B105, B106, B215, I22, M29; **IsMs**:H145, S32, S173; **IsSp**:B109, B160, C78, F84, F85, J38, S221; **IsTh**:F66, F67; **Ki**:B34, B105, H5, H164, S34; **KiB**:B88, F10, F55, R50; **KiG**:B18, B106, B215, C91, D23, D41, D46, H42, J46, M29, M44, M82, M85, P110, S44, T63, T87, V34, W86, W87; **KiH**:A68, B16, B17, B19, C76, D65, E23, E28, F10, H110, H111, H135, H136, I22, K16, K17, K30, K31, K32, L3, L106, M7, P23, R91, S8, S118, T98, T101, T103, W51, W52; **KiL**:H152, M171; **KiL**:S24; **KiP**:C96, D23, M29; **KiR**:A36, B197, B198,

Hydrogen(H₂)—Continued:

- B271, G15, H141, H142, H143, H148, M161, M162, M163, M164, M165, M166, M167, M168, P72, S86, S196; **Me**:K56, W144; **MeAc**:I27, I28, K104, S179; **MeD**:B216, I29, I30, K45, R94; **MeDf**:B159, C98, D25, I25, I26, K55, M168, W17; **MeSt**:H35; **MeV**:B155, B216, I25, I26, I29, I30, R94, T90, T91, U2, V18, W71, W132; **Sd**:G115, K37; **SoG**:T8; **Sp**:F49, S34, W144; **SpEl**:F84, F85, G134, I1, N48, N49, N50, R8; **SpFl**:R89; **SpM**:K82, K83, K84, R7, R10, T41, W51, W52; **SpVi**:B109, C78, G19, H97, H98, K93, K94, S111, S221, W140; **Sr**:B11, B49, B50, D44, E54, F65, H145, K28, M127, M134, M171, R29, S32, S173; **St**:A57; **StD**:K84, R10, V18, W73; **Sy**:A26, B19, B58, B88, B198, C99, F46, F47, H142, H148, I1, K16, K68, N38, N58, P2, S146, W60, W114; **Th**:K56, P103, S34, W144; **ThD**:B155, G111, G112, I25, I26, I32, M169, T90, T91, U2, W17, W18, W132; **ThF**:B16, B109, B154, B215, D65, F65, G128, H42, J29, J39, K21, K22, K37, O22, S147, S197, U10, W132; **ThP**:A90, C99, F66, F67, G115, H17, H35, H132, H133, K37, P103, U5, U10, W132; **ThS**:B154; **ThSo**:A90.
- Hydrogen, mass 4 **Nu**:B207.
- Hydrogen difluoride ion (HF₂⁻) **IsSp**:H13; **SpVi**:H13.
- Hydrogen ion (H⁺) **EcC**:G39, T2; **EcP**:D65, R91; **EqL**:G122; **Ki**:C61; **KiH**:D65, R91; **Se**:D65, R91; **Sv**:B49, K63, S173; **ThF**:D65.
- Hydrogen molecule ion (H₂⁺) **Sr**:B49, K63.
- Hydrogen peroxide (H₂O₂) **ElP**:P51; **ElRf**:P51; **EqH**:A36; **IsSp**:P52; **KiL**:D32; **KiR**:A36; **MeD**:P51; **MeSt**:P51; **MeV**:P51; **SpVi**:G40, G46, T24; **StD**:G40, M59, P51; **Sy**:M59, M60s, P51.
- Hydrogen selenide (H₂Se) **Eq**:S34; **Is**:S34; **IsSp**:H13; **IsTh**:S35; **Ki**:S34; **SdTr**:S35; **SpEl**:P100, P101; **SpM**:K51; **SpVi**:H13, T18; **St**:T18; **ThF**:S35; **ThP**:S35.
- Hydrogen selenide-t (H₂Se-t) **SpVi**:T18; **St**:T18.
- Hydrogen sulfide (H₂S) **AnMs**:T61; **EID**:H118; **Eq**:S34; **EqG**:T17; **Is**:S34; **IsSp**:H13; **IsTh**:S35; **Ki**:S34; **SdCr**:L86; **SdSp**:L86; **SdTr**:S35; **Sp**:S34; **SpEl**:P100, P101; **SpM**:H118, K51, **SpVi**:H13, L86, T18; **St**:T18; **StD**:H118; **ThF**:S35; **ThP**:S35.
- Hydrogen sulfide-t (H₂S-t) **SpVi**:T18; **St**:T18.
- Hydrogen telluride (H₂Te) **SpEl**:P100, P101.
- Hydronium ion (H₃O⁺) **EcC**:F79, S218; **Eq**:S34; **EqI**:B214, S198, S218; **InKi**:W54; **IsEq**:B214; **IsMs**:S173; **KiB**:W54; **SeEl**:S34; **ThSo**:B214, S218.
- Hydroquinone (C₆H₆O₂) **EqG**:G97; **InSt**:G97, G98; **KiB**:S93; **KiG**:B228; **Sy**:G98; **ThP**:G98.
- 17- α -Hydroxy-21-acetoxy- Δ^4 -pregnene-3, 20-dione (C₂₁H₂₈O₅) **Sy**:K69.
- Hydroxyhydrindene (C₉H₁₀O) **EqL**:T93.
- Hydroxyl ion (OH⁻) **EcC**:G39, H102; **Eq**:M1; **EqL**:S91s; **KiL**:S91s.
- Hydroxyl radical **ElGd**:H155, O26; **EqH**:A36; **EqI**:A36; **IsSp**:O27; **KiG**:H155; **KiR**:A36; **SpEl**:H155, O26, O27, S58; **SpVi**:P88; **StD**:O26.
- Hydroxy phenylacetic acid (C₈H₈O₂) **EqL**:D63; **InKi**:D63; **Sy**:D63.
- 3,4-bis-(*p*-Hydroxyphenyl)hexane (C₁₈H₂₂O₂) **Bi**:L1; **Sy**:L1.
- Hydroxy tetrahydronaphthalene (C₁₀H₁₂O) **EqL**:T93.
- Hypochlorous acid (HOCl) **SpVi**:H67; **StD**:H67.
- Hypophosphorous acid (H₃PO₂) **EqL**:A22; **InKi**:A22; **Sy**:W34s.
- Indene (C₉H₈) **ElMg**:M43; **ElRf**:M43; **EqL**:S80; **InKi**:S80; **KiL**:S80; **MeD**:M43.
- Inositol (C₆H₁₂O₆) **InBi**:S171; **Sy**:S171.
- Insulin **InBi**:S168; **KiB**:S168.
- Iodide ion **EqH**:A36; **EqI**:A36; **KiR**:A36.
- Iodine **AnSp**:B215; **Eq**:S34; **EqG**:B215; **IsKi**:B215; **Ki**:S34; **KiG**:B215; **KiR**:S196; **Sy**:C100; **ThF**:B215.
- Iodobenzene (C₆H₅I) **KiR**:S196.
- Iron **SoI**:B249.
- Isobutane (C₄H₁₀) **InKi**:W1; **KiL**:S180, W1; **Sy**:S180.
- Isoocyanic acid (HNCO) **EID**:S101; **SpM**:J36, S101; **SpVi**:J36; **StD**:J36.
- Isothiocyanic acid (HNCS) **SpM**:B52; **St**:B52; **StD**:B52.
- Isotopes **Ge**:B167; **InBi**:B167.
- Ketene (C₂H₂O) **EID**:J25; **SpM**:B15, J24, J25; **SpVi**:F36; **StD**:B15, J25; **Sy**:J24.
- Ketoglutaric acid. See Acetone dicarboxylic acid.
- Lanthanum hydride (LaH₃) **AdG**:V20; **EqH**:V20.
- Lauric acid (C₁₂H₂₄O₂) **InBi**:K57; **KiB**:K57; **KiR**:H142; **Sy**:H142.
- Lead **EcO**:B249; **SoI**:B249.
- Lead chloride **SoH**:N52.
- Leucine (C₆H₁₃NO₂) **AnCl**:K85; **AnDn**:K85; **InBi**:S153, U12; **KiB**:K85, S152, S153, U12; **Sy**:S152.
- Lipids **BiC**:B143; **KiB**:B143; **Sy**:B143.
- Lithium aluminum hydride (LiAlH₄) **EqL**:A21; **Sy**:D43, E24, F87s, W60.
- Lithium aluminum hydride-t (LiAlH₄-t) **Sy**:W113.
- Lithium hydride (LiH) **IsCr**:N54; **NuIn**:W135; **Sd**:K6; **SdCr**:G119, L90, N54; **Sy**:E24; **ThF**:K6; **ThP**:G119.
- Lithium hydride-t (LiH-t) **EqH**:W113; **KiH**:W113; **Sy**:W113.
- Lithocholic acid (C₂₄H₄₀O₃) **Sy**:P27; **ThP**:P27.
- Lysine (C₆H₁₄N₂O₂) **InBi**:C82; **KiB**:C82; **Sy**:C82.
- Magnesium **EcP**:C101; **KiH**:C101.
- Magnesium hydride (MgH) **IsSp**:G134; **SpEl**:G134.
- Malic acid (C₄H₆O₅) **InBi**:D15.
- Malonic acid (C₃H₄O₂) **EqL**:C97; **IsKi**:P68; **Sy**:C97.
- Mandelic acid (C₈H₈O₃) **EqL**:D63; **InKi**:D63; **Sy**:D63.
- Manganese hydride (MnH) **SpVi**:N32.
- Mentane. See Hexahydrocymene.
- Mercapto radical (HS) **SpVi**:P88.
- Mercuric cyanide **SoH**:N52.
- Mercurous hydride (HgH) **IsSp**:M159.
- Mercury **EcO**:B249; **SoI**:B249.
- Mercury hydride molecule ion (HgH⁺) **SpEl**:F14.
- Mesitylene. See Trimethylbenzene.
- Methane (CH₄) **AdG**:L106, T23, W136; **AnC**:D9, P59; **AnMs**:H42, H147, O13, S174, T21, T62, T99, W136; **AnSp**:B242; **EIT**:I27; **EqG**:T17, W86; **EqH**:K30, P13, T23, T50, W136; **InKi**:M164, P13; **InSt**:T99; **Is**:S34; **IsMs**:D43, E51, S175, T99; **IsSp**:E3, E5, H13, S95, S221; **IsTh**:K102, S35; **KiG**:H42, W86; **KiH**:K30, L109, P13, W136; **KiP**:C96; **KiR**:H148, M164; **MeAc**:I27; **MeV**:I24; **NuRe**:A58, A59; **SdCr**:N4; **SdTr**:A59, S35; **SeDf**:C94; **SpEl**:H144; **SpVi**:B13, B242, D26, D34, E3, E5, H13, H85, L74, L75, M64, M93, S95, S96, S97, S98, S221, T18, T51, V37; **Sr**:B49, D43, E51, H144, H146, L97, L98, S47, S174, S175, T51, T58, T99; **St**:B13, D26, D34, L74, L75, M93, S96, S98, T18; **Sy**:B242, D43, E51, H148, S47, T51, T99, W7; **ThF**:H42, K102, N4, S35; **ThP**:S35.

- Methane-t (CH_4 -t) **AnC**:R61; **SpVi**:T18; **St**:T18.
- Methionine ($\text{C}_5\text{H}_{11}\text{NO}_2\text{S}$) **InBi**:C111, S112, V25; **KiB**:C111, S112, V25.
- Methyl acetoxycholate-t ($\text{C}_8\text{H}_{19}\text{NO}_3$ -t) **AnC**:E15; **Sy**:E15.
- Methyl acetylene. See Allylene.
- Methyl alcohol (CH_3OH) **An**:B58, B59; **EqL**:C97, S80; **Ge**:A74; **InKi**:S80; **InSt**:S70s; **IsSp**:C136, H13; **KiB**:V26; **KiL**:S80; **SdTr**:S156; **SeDs**:D72; **SpVi**:B58, B59, C136, C137, H13, H82, H85, S70s, S163; **St**:S163; **StA**:D72; **Sy**:A74, B58, B59, C97, V26; **ThF**:S156; **ThP**:B58, B59, S156.
- Methyl alcohol-t (CH_3OH -t) **InKi**:M102; **KiL**:M102.
- Methyl amine (CH_3N) **KiP**:W38.
- Methylaminoethanol ($\text{C}_3\text{H}_9\text{NO}$) **KiB**:V26; **Sy**:V26.
- Methylaminoethyl picrate ($\text{C}_9\text{H}_{10}\text{N}_4\text{O}_7$) **KiB**:V26; **Sy**:V26.
- Methylantracene ($\text{C}_{15}\text{H}_{11}$) **InKi**:H187; **Sy**:H187.
- Methylantraquinone ($\text{C}_{15}\text{H}_9\text{O}_2$) **InKi**:H187; **Sy**:H187.
- Methyl bromide (CH_3Br) **An**:B59; **IsSp**:C134, E4, H13; **IsTh**:D40; **SpM**:S116; **SpVi**:B59, C134, D26, D62, E4, H13, H82, H88, H89; **St**:D26, D62; **StD**:S116; **Sy**:B59; **ThF**:D40; **ThP**:B59.
- Methyl chloride (CH_3Cl) **An**:B59; **IsSp**:E3, E4, H13; **SpM**:M71, M124, S114, S116; **SpVi**:B59, C135, D26, D62, E3, E4, H13, H82, H88, H89, N48, S96; **St**:D26, D62, M93, S96; **StD**:M71, M124, S114, S116; **Sy**:B59; **ThP**:B59.
- Methylcholanthrene ($\text{C}_{21}\text{H}_{16}$) **BiZ**:B31.
- Methyl cyanide. See Acetonitrile.
- Methylene blue ($\text{C}_{16}\text{H}_{19}\text{N}_3\text{OS}$) **KiB**:S93; **KiL**:S93.
- Methylene bromide (CH_2Br_2) **IsSp**:H13; **SpVi**:D26, D34, H13; **St**:D26, D34.
- Methylene chloride (CH_2Cl_2) **SpVi**:D26, S96; **St**:D26, S96.
- Methyl ethoxy naphthalene ($\text{C}_{13}\text{H}_{14}\text{O}$) **EqL**:T93.
- Methyl ethylbenzene ketone ($\text{C}_{10}\text{H}_{12}\text{O}$) **EIRf**:E24; **ElRo**:E24; **Sy**:E24; **ThP**:E24.
- Methyl ethylbenzene ketoxime ($\text{C}_{10}\text{H}_{13}\text{NO}$) **ElRo**:E24; **Sy**:E24; **ThP**:E24.
- Methyl fluoride (CH_3F) **SpM**:J23.
- Methyl iodide (CH_3I) **An**:B59; **IsKi**:N41; **IsSp**:C134; **KiB**:V26; **KiG**:N41; **KiR**:S196; **SpM**:S114, S116; **SpVi**:B59, C134, D62, F18, H82, H89; **St**:D62; **StD**:F18, S114, S116; **Sy**:B59, V26; **ThF**:F18; **ThP**:B59.
- Methyl isocyanide (CH_3NC) **SpM**:K38, T78; **StD**:K38, T78.
- Methyl lithocholate ($\text{C}_{25}\text{H}_{42}\text{O}_3$) **ElRo**:K68; **Sy**:K68; **ThP**:K68.
- Methyl naphthalene ($\text{C}_{11}\text{H}_{10}$) **AnDn**:F75.
- Methylnicotinamide ($\text{C}_7\text{H}_8\text{N}_2\text{O}_2$) **InBi**:K25; **KiB**:K25.
- Methyl oleate ($\text{C}_{19}\text{H}_{36}\text{O}_2$) **KiH**:K39; **Sy**:K40.
- Methyl quinoline ($\text{C}_{10}\text{H}_9\text{N}$) **EqL**:S80; **InKi**:S80; **KiL**:S80.
- Methyl radical (CH_3) **AdG**:T24, W136; **AnMs**:W136; **EqH**:T24, W136; **IsKi**:M29; **IsSp**:V2; **KiG**:M29, M44, T88, T89; **KiH**:W136; **KiP**:D23, M29, T88, T89.
- Methyl silane (CH_3SiH_3) **SpM**:L64.
- Methyl stearate ($\text{C}_{19}\text{H}_{38}\text{O}_2$) **Sy**:K40.
- Methylthioglycolic acid ($\text{C}_3\text{H}_6\text{O}_2\text{S}$) **InBi**:M78.
- Mustard gas. See Dichlorodiethyl sulfide.
- Myristic acid ($\text{C}_{14}\text{H}_{28}\text{O}_2$) **InBi**:B88, K57; **KiB**:B88, K57; **Sy**:B88.
- Naphthalene (C_{10}H_8) **EqL**:S80; **InKi**:S80; **KiG**:P110; **KiL**:S80; **KiR**:T12; **SpVi**:C132; **St**:P110.
- Naphthalene-t (C_{10}H_8 -t) **InKi**:M99, M101; **IsKi**:M101; **KiL**:M101; **Sy**:M101.
- Naphthoic acid-t ($\text{C}_{11}\text{H}_8\text{O}_2$ -t) **AnC**:B111.
- Naphthol ($\text{C}_{10}\text{H}_8\text{O}$) **EqL**:T93.
- Nickel **AdG**:B16, B17, K23, L106, P23, S8; **EcO**:B249; **EqH**:A68; **Ge**:B16, B17; **InKi**:A68; **KiH**:A68, B16, B17, L106, P23, S8, T98, T103; **MeDf**:B17; **SoI**:B249; **ThF**:B16.
- Nickel, deuterized **Sy**:F87.
- Nickel dimethyl glyoxime ($\text{C}_8\text{H}_{14}\text{N}_4\text{O}_4\text{Ni}$) **InSt**:V39; **IsSp**:R98; **SpVi**:R98, V39; **StA**:R98, V39.
- Nicotinic acid ($\text{C}_6\text{H}_5\text{NO}_2$) **AnSp**:T80; **Sy**:T80.
- Nicotinic acid, methyl ester of ($\text{C}_7\text{H}_7\text{NO}_2$) **AnSp**:T80; **Sy**:T80.
- Nitramide (NH_2NO_2) **KiL**:B67.
- Nitric acid (HNO_3) **EqH**:A36; **EqI**:A36; **KiR**:A36.
- Nitrobenzene ($\text{C}_6\text{H}_5\text{NO}_2$) **AnMs**:A23; **SpVi**:A23; **Sy**:A23, H163.
- Nitrobenzene-t ($\text{C}_6\text{H}_5\text{NO}_2$ -t) **InKi**:M99.
- Nitrogen **MeDf**:W17; **ThD**:W17.
- Nitromethane (CH_3NO_2) **IsSp**:H13; **SpVi**:H13.
- Nitronaphthalene-t ($\text{C}_{10}\text{H}_7\text{NO}_2$ -t) **InKi**:M99.
- Nitrophenol ($\text{C}_6\text{H}_5\text{NO}_3$) **SpVi**:H163; **Sy**:H163.
- Nitrotoluene ($\text{C}_7\text{H}_7\text{NO}_2$) **EqL**:G82, S80; **InKi**:S80; **KiL**:S80; **SpVi**:G82.
- Nitrotoluene-t ($\text{C}_7\text{H}_7\text{NO}_2$ -t) **InKi**:M99.
- Nitrous acid (HNO_2) **IsSp**:P89; **SpVi**:D68, P89, T9; **St**:T9; **StA**:D68.
- Octadecene. See Octadecylene.
- Octadecyl alcohol ($\text{C}_{18}\text{H}_{38}\text{O}$) **KiR**:B197.
- Octadecylene ($\text{C}_{18}\text{H}_{36}$) **EIRf**:M79; **KiL**:M79; **MeD**:M79; **Sy**:M79.
- Octane (C_8H_{18}) **EqL**:B272; **InKi**:B272; G77; **InSd**:B124s; **KiL**:B272, G77; **SoO**:B124s.
- Octene. See Octylene.
- Octyl alcohol ($\text{C}_8\text{H}_{18}\text{O}$) **AnSp**:C133; **EID**:C133; **IsTh**:C133; **Sy**:C133, M79; **ThF**:C133.
- Octylene (C_8H_{16}) **EqH**:B63; **Me**:B63.
- Oleic acid ($\text{C}_{18}\text{H}_{34}\text{O}_2$) **InBi**:B88; **KiB**:B88; **KiR**:B197; B271; **Sy**:B88.
- Organic compounds **AnMs**:G96.
- Organic compounds-t **Ge**:P24.
- Organic silicon compounds **EqL**:K42.
- Oxalic acid ($\text{H}_2\text{C}_2\text{O}_4$) **KiB**:V26; **Sy**:V26.
- Oxalic acid, sodium salt of ($\text{HC}_2\text{O}_4\text{Na}$) **InKi**:L25; **KiL**:L25.
- Oxygen **Eq**:W72; **KiG**:J46, W86; **MeDf**:W17; **ThD**:W17.
- Palladium **EqH**:A68; **InKi**:A68; **KiH**:A68; **SoG**:T8.
- Palmitic acid ($\text{C}_{16}\text{H}_{32}\text{O}_2$) **BiZ**:C115, F12; **InBi**:B88; **KiB**:B88; **KiR**:H142, P1; **Sy**:B88, H142.
- Paraffin **Nu**:C20.
- Paraffins **Ge**:S87; **IsSp**:S87; **SpVi**:S87.
- Pentadecane ($\text{C}_{15}\text{H}_{32}$) **KiR**:G15.
- Pentane (C_5H_{12}) **EqG**:T87; **InKi**:T87; **InSo**:B124s; **KiG**:T87; **SoO**:B124s; **SpVi**:R11; **StD**:R11.
- Pentene. See Amylene.
- Phenanthrene ($\text{C}_{14}\text{H}_{10}$) **AnDn**:F75.

Phenetole ($C_8H_{10}O$) **EqG**:B225; **EqL**:B231; **InKi**:B225, B231.

Phenol (C_6H_5OH) **EqG**:B225, B230; **EqL**:B231, H44; **InKi**:B225, B231, F42s, F44s, H187s; **IsSp**:R60; **KiG**:B230; **KiL**:H44; **SpEl**:R59, R60; **Sy**:B231, F44, H187.

Phenylacetic acid ($C_8H_8O_2$) **Sy**:K1.

Phenylacetylchloride (C_8H_7ClO) **InBi**:B61; **Sy**:B61.

Phenylacetyl valine ($C_{13}H_{17}NO_2$) **InBi**:B61; **Sy**:B61.

Phenylalanine ($C_9H_{11}NO_2$) **InBi**:G135, U12; **KiB**:G135, U12.

Phenylene diamine ($C_6H_8N_2$) **KiB**:S93.

Phenylglyoxal ($C_8H_6O_2$) **EqL**:D63; **InKi**:D63; **Sy**:D63.

Phenyl propionic acid ($C_9H_{10}O_2$) **ElRo**:I34; **Sy**:I34.

Phenyl propyl bromide ($C_9H_{11}Br$) **EqL**:H127; **InSt**:H127; **Sy**:H127.

Phosphine (PH_3) **AnMs**:U4; **EID**:L92; **IsSp**:H13; **SpM**:L92; **SpVi**:H13, T18; **St**:T18; **Sy**:U4.

Phosphine-t (PH_3-t) **SpVi**:T18; **St**:T18.

Phosphoric acid (H_3PO_4) **SpVi**:L49s; **Sy**:A69.

Phosphorous **Sy**:C100.

Phosphorous tribromide **Sy**:C100.

Picoline (C_6H_7N) **EqL**:S80; **InKi**:S80; **KiL**:S80.

Platinum **AdG**:B16, B17, D65, R91; **EcP**:D65, R91; **EqH**:B19; **Ge**:B16, B17; **KiH**:B16, B17, B19, D65, R91; **KiL**:D32; **MeDf**:B17; **Se**:D65, R91; **Sy**:B19; **ThF**:B16, D65.

Platinum dioxide **EqH**:F29.

Polymethylene ($(CH_2)_n$) **SpVi**:L40, S97; **Sy**:L40.

Potassium amide (KNH_2) **EqH**:C76; **KiH**:C76.

Potassium arsenate, dihydrogen (KH_2AsO_4) **IsCr**:D54; **SdCr**:D54.

Potassium bifluoride (KHF_2) **SpVi**:N36.

Potassium bromate **SoH**:C33.

Potassium bromide **EID**:D73; **SoH**:C34; **SpEl**:D73.

Potassium chlorate **SoH**:C33, N52.

Potassium chloride **SeDf**:H122; **SoH**:C34.

Potassium chromate **SoH**:C33.

Potassium dichromate **SoH**:C33, N52.

Potassium ferrieyanide **SoH**:C34.

Potassium hydride (KH) **Sd**:K6; **SpEl**:I1; **ThF**:K6.

Potassium hydroxide (KOH) **EqH**:C76; **KiH**:C76; **Sy**:H163.

Potassium iodate **SoH**:C34.

Potassium iodide **SoH**:C34.

Potassium nitrate **SoH**:C35; **SpEl**:D11, D12.

Potassium perchlorate **SoH**:C33.

Potassium permanganate **SoH**:C35, N52.

Potassium perrhenate **SoH**:C34.

Potassium phosphate, dihydrogen (KH_2PO_4) **EID**:G54; **EIMg**:P67; **EIP**:P67; **IsCr**:D54; **IsEl**:P67; **SdCr**:D54, J33, K1, Q1; **SdEc**:J32; **SdEl**:G54, P67, Z12; **SdTr**:Q1, Z12; **SpVi**:P67; **Th**:G54.

Potassium silver cyanide **SoH**:N52.

Potassium sulfate **SoH**:C34.

Potassium thiocyanate **SoH**:C35; **ThSo**:N47.

Pregnanedione ($C_{21}H_{32}O_2$) **ElRo**:K68; **Sy**:K68; **ThP**:K68.

Pregnanolone ($C_{21}H_{34}O_2$) **AnSp**:D61; **ElRo**:K68; **SpVi**:D61; **Sy**:K68; **ThP**:K68.

Pregnanolone formate ($C_{22}H_{34}O_3$) **ElRo**:K68; **Sy**:K68, **ThP**:K68.

Progesterone ($C_{21}H_{30}O_2$) **ElRo**:K68; **Sy**:K68; **ThP**:K68.

Propane (C_3H_8) **AnMs**:H147, K16, R71, S174, S175, T99; **ElRf**:C117; **EqH**:K16, W6; **InKi**:W6; **InSt**:T99; **IsMs**:S175, T99; **KiG**:T87; **KiH**:K16; **Me**:C117; **SpVi**:C87, F70, M17, M18, M19; **Sr**:C117, C118, H146, R71, S47, S174, T99; **StD**:M17, **Sy**:C117, C118, K16, M19, S47, T99, W7; **ThP**:C117.

Propene. See Propylene.

Propionic acid ($C_3H_6O_2$) **Sy**:C131, K102.

Propionic acid, silver salt of ($C_3H_5O_2Ag$) **Sy**:C131.

Propyl alcohol (C_3H_7OH) **ElRf**:C117, **InKi**:K41s; **IsKi**:W65; **KiL**:W65; **Me**:C117; **SpVi**:C118; **Sr**:C117, C118, F71; **Sy**:C117, C118; **ThP**:C117.

Propyl chloride (C_3H_7Cl) **AnMs**:N10, R71; **ElRf**:C117; **InKi**:N10; **Me**:C117; **SpVi**:C118; **Sr**:C117, C118, R71; **Sy**:C117, C118; **ThP**:C117.

Propylene (C_3H_6) **AnMs**:H147, N10; **EqH**:K81; **InKi**:H188, N10.

Propyl iodide (C_3H_7I) **KiR**:S196.

Propyne. See Allylene.

Proteins **KiB**:K73.

Pyrogallol. See Trihydroxybenzene.

Pyrrole (C_4H_5N) **IsSp**:H13; **SpEl**:M118; **SpVi**:H13.

Quinaldine. See Methyl quinoline.

Quinhydrone ($C_{12}H_{10}O_4$) **InSt**:G98; **Sy**:G98.

Quinone ($C_6H_4O_2$) **EqG**:G97; **InSt**:G97, G98; **KiG**:B228; **Sy**:G98; **ThP**:G98.

Reichstein's substance "S". See 17- α -Hydroxy-21-acetoxy- Δ^4 -pregnene-3, 20-dione.

Rubidium arsenate, dihydrogen (RbH_2AsO_4) **SdEl**:P15.

Rubidium hydride (RbH) **Sd**:K6; **ThF**:K6.

Rubidium phosphate, dihydrogen (RbH_2PO_4) **SdEl**:P15.

Saccharic acid, potassium salt of ($C_6H_9O_8K$) **InBi**:S37; **KiB**:S37.

Serine ($C_3H_7NO_3$) **Sy**:E26.

Silane. See Silicon hydride.

Silane-t. See Silicon hydride-t.

Silica gel **AdG**:B219; **EqH**:P13; **InKi**:P13; **KiH**:P13.

Silicobromofrom ($SiHBr_3$) **IsSp**:H13; **SpVi**:D34, H13; **St**:D34.

Silicochloroform ($SiHCl_3$) **IsSp**:H13; **SpVi**:D34, H13; **St**:D34.

Silicoethane (Si_2H_6) **Ge**:S183; **KiG**:S183; **Me**:S183; **Sy**:S183; **ThP**:S182, S183.

Silicon hydride (SiH_4) **Ge**:S183; **KiG**:S183; **Me**:S183; **Sy**:S183; **ThP**:S182, S183.

Silicon hydride-t (SiH_4-t) **SpVi**:T18; **St**:T18.

Silicon tetrachloride **Sy**:C100.

Silicon tetramethyl ($C_4H_{12}Si$) **SpVi**:R11; **StD**:R11.

Silver chlorate **SoH**:N52.

Silver chloride **AdG**:I22; **IsKi**:I22; **KiH**:H110, I22.

Silver hydride (AgH) **SpEl**:N51.

Sodium borohydride ($NaBH_4$) **EqL**:G55.

Sodium bromate **SoH**:N52.

Sodium carbonate **Sy**:B58.

- Sodium chloride **EcP**:C101; **KiH**:C101.
- Sodium ethoxide (C_2H_5ONa) **InKi**:S120; **KiL**:S120; **Sy**:C40, S120.
- Sodium hydride (NaH) **IsSp**:S30; **IsTh**:S30; **NuIn**:W125; **Sd**:K6; **SdCr**:S105, W125; **SdSp**:S30; **ThF**:K6, S30.
- Sodium hydroxide ($NaOH$) **AdG**:R91; **EcC**:H102; **EcD**:R91; **InKi**:L25; **KiH**:R91, W34; **KiL**:L25; **Se**:R91; **SeEl**:B58, E9, E10, T84; **SpVi**:G82, L49s; **Sy**:W58.
- Sodium iodate **KiL**:C37.
- Sodium oxalate **SoH**:N52.
- Sodium potassium tartrate. See Tartaric acid, sodium potassium salt of.
- Sodium sulfate **AdG**:D65; **EcP**:D65; **KiH**:D65; **Se**:D65; **SeDf**:H122; **ThF**:D65.
- Sodium sulfite **KiL**:C37.
- Stearic acid ($C_{17}H_{35}O_2$) **BiZ**:F12; **InBi**:B88; **KiB**:B88; **KiR**:B197; **Sy**:B88, K40.
- Steroids **EqH**:F86; **Sy**:F86.
- Stibine (SbH_3) **ElD**:L92; **SpM**:L92.
- Styrene (C_8H_8) **EqL**:Y10, Y11, Y12; **InKi**:S120, Y10, Y11, C60; **KiL**:S120, Y10, Y11, Y12; **Sy**:S120.
- Succinic acid ($C_4H_6O_4$) **EqL**:L107; **InBi**:F55, K76, W54; **KiB**:F10, F55, K76, T53, T54, W54; **KiH**:F10, L107; **Sy**:L107.
- Sulfuric acid (H_2SO_4) **AdG**:D65s, R91s; **An**:B100; **EcO**:B254s; **EcP**:D65s, R91s; **EqL**:B100, B272, O25s; **InKi**:B272, G77, H187s; **KiH**:D65s, R91s; **KiL**:B272, C37, G77, S180; **Se**:D65s, R91s; **SeDf**:H122; **SoI**:B254s; **Sy**:C131, H109s, H163s, K78, S94, S180, T80s; **ThF**:D65s.
- Sulfuric acid-t (H_2SO_4 -t) **KiL**:S180; **Sy**:S180.
- Tartaric acid, sodium potassium, salt of ($C_4H_4O_4NaK$) **SdEl**:M74; **SdTr**:M74; **St**:M74.
- Testosterone ($C_{19}H_{28}O_2$) **Sy**:K68.
- Tetrachloroethane ($C_2H_2Cl_4$) **AnSp**:L39; **EqL**:L39; **SpVi**:B92; **Sy**:L39.
- Tetramethylglucose ($C_{10}H_{20}O_6$) **InBi**:S170; **KiB**:S170.
- Tetramethylsilane. See Silicon tetramethyl.
- Tetrasilane (Si_4H_{10}) **Ge**:S183; **KiG**:S183; **Me**:S183; **Sy**:S183; **ThP**:S182, S183.
- Thallos nitrate **SoH**:C36, N52.
- Thallos perchlorate **SoH**:N52.
- Thiophene (C_4H_4S) **ElRf**:S53; **MeD**:S53; **SpVi**:K78; **Sy**:K78, S53; **ThP**:S53.
- Thorium dihydride (ThH_2) **SdCr**:R99.
- Threonine ($C_4H_9NO_3$) **SpVi**:G82.
- Toluene (C_7H_8) **An**:B227; **AnSp**:T59; **EqG**:B225; **EqL**:S80; **InKi**:B225, B227, H187s, S80; **InSo**:B124s; **InSt**:M117; **KiG**:M117; **KiL**:S80; **SoO**:B124s; **SpEl**:C62; **SpVi**:S124, T59, T60, T100; **St**:C62; **Sy**:B227, H187s, T100.
- Toluene-t (C_7H_8 -t) **InKi**:M99, M100, M101; **IsKi**:M101; **KiL**:M100, M101; **Sy**:M101.
- Toluene, derivatives of **EqL**:B217.
- Toluidene (C_7H_9N) **EqL**:S80; **InKi**:S80; **KiL**:S80.
- Toluidine hydrochloride ($C_7H_9N \cdot HCl$) **Eq**:K122; **Sd**:K122.
- Tribromoethane ($C_2H_3Br_3$) **AnSp**:J51; **ElRf**:V13; **IsTh**:D40; **MeD**:V13; **SpVi**:V12; **Sy**:J51, V12; **ThF**:D40; **ThP**:J51, V13.
- Tribromomethane. See Bromoform.
- Tribromosilane. See Silicobromoform.
- Trichloroethylene (C_2HCl_3) **AnSp**:L39; **EqL**:L39; **SpVi**:B92; **Sy**:L39.
- Trichloromethane. See Chloroform.
- Trichlorosilane. See Silicochloroform.
- Triethoxysilane ($C_6H_{16}SiO_3$) **EqL**:B229.
- Triethylsilane ($C_6H_{16}Si$) **EqL**:B229.
- Trifluoroacetic acid ($C_2HF_3O_2$) **SpVi**:J45.
- Trifluoroallylene (C_3HF_3) **SpM**:A79, S100; **StD**:A79, S100.
- Trifluoromethane. See Fluoroform.
- Trifluoromethylacetylene. See Trifluoroallylene.
- Trihydroxybenzene ($C_6H_6O_3$) **KiB**:S93.
- Trimesic acid ($C_9H_6O_2$) **Sy**:W58.
- Trimethylbenzene (C_9H_{12}) **InSt**:M117; **KiG**:M117; **SpVi**:T60.
- Trimethylecyclohexanone ($C_9H_{16}O$) **EqG**:N24; **InSt**:N24.
- Trimethyl hydrocinnamyl ammonium bromide ($C_{12}H_{20}NBr$) **EqL**:H127; **InSt**:H127; **Sy**:H127.
- Triolein ($C_{57}H_{104}O_6$) **InBi**:B91.
- Trioxymethylene ($C_3H_6O_3$) **KiB**:V26; **Sy**:V26.
- Tripalmitin ($C_{50}H_{100}O_6$) **BiZ**:C115.
- Triphenylmethane ($C_{18}H_{16}$) **EqL**:S80; **InKi**:S80; **KiL**:S80.
- Triphenylmethyl ($C_{18}H_{15}$) **EqL**:F43; **InKi**:F43.
- Triphenylsilane ($C_{18}H_{16}Si$) **EqL**:B229; **IsKi**:G52; **KiL**:G52.
- Trisilane (Si_3H_8) **Ge**:S183; **KiG**:S183; **Me**:S183; **Sy**:S183; **ThP**:S182, S183.
- Tritium **AdG**:R64; **ElGd**:A91; **EqG**:D41, J39, J40, M75; **EqH**:A36; **EqI**:A36; **InBi**:B74, S63; **IsKi**:B105, J41; **IsMs**:S32; **Ki**:B105; **KiG**:D41; **KiP**:J41; **KiR**:A36, J41, T12; **MeD**:G116, H17, K36; **Sd**:G115; **SdTr**:H17; **SpEl**:D55, D56; **Sr**:D44, M134, S32; **StD**:D56, **ThF**:G128, J39, J40; **TLP**:G115, H17.
- Uranium hydride (UH_3) **An**:S146; **EqH**:W35; **KiH**:S146; **MeD**:S146; **Sd**:N38, S146, W35; **SdCr**:R96, R97; **StD**:R96; **Sy**:N38, N39, R97, S146; **ThF**:S146; **ThP**:S146.
- Uranium hydride-t (UH_3 -t) **Sy**:R64.
- Uranium nitrate hydrates **SpFl**:S78.
- Vinyl bromide (C_2H_3Br) **AnSp**:J51; **InSt**:H84; **IsSp**:H84; **SpVi**:H82, H84, H91; **Sy**:J51.
- Vinylidene bromide. See Acetylene dibromide.
- Water (H_2O) **AdG**:B219, D65, H29, R91, T24; **AdL**:V19; **AnDn**:S49; **AnMs**:S49; **Bi**:C28; **BiC**:B143, B144, C2, D15, E48, G57, G86, G87, H126, H192, J2, K9, K77, M137, O8, P66, P87, S49, S93, V33; **BiZ**:C14; **EcC**:D59, S218; **EcO**:C39; **EcP**:N53; **ElD**:D59, K51, R48, S188, S189; **ElGd**:G20, K107, O26, R6; **ElMm**:J14; **ElMr**:G114; **ElRf**:I2; **EIT**:B148, D59, F28, I27; **Eq**:L63, S34, W72; **EqG**:F29, S197; **EqH**:A36, B213, E47, F29, G85, H30, K107, T24, T26; **EqI**:B214, S198, S218; **EqL**:H112, K42, M141, P66, S197; **In**:G85; **InBi**:A27, E2, F74, G18, G75, G88, H28, H193, K76, P66, S49, S140, S162, S170, S171, S228, T35, V11, V112, V27, V33; **InKi**:G20, H29, L25, T74, W1; **InSo**:B124, J44; **InSt**:U6, V19, W55; **Is**:S34; **IsEq**:B214; **IsSp**:D29, H13, K50, O27, S221; **IsTh**:E45; **Ki**:S34; **KiB**:B143, E8, E48, G75, K76, L88, S169, S170, T35, U11, U12, V26; **KiG**:D3; **KiH**:C101, D32, D65, H30, R91; **KiL**:B232; **KiL**:L25, M116, W1; **KiR**:A36; **Me**:K56, W144; **MeAc**:H94, H103, I27, M14; **MeD**:C38, E45, F75, H36, H37, H103, L47, S52, V21, W22, W23, W117; **MeDf**:G100, K48; **MeV**:A96, B24, D59, H36, H37, L47; **Sd**:W62; **SdCr**:L2, L91, S103,

Water (H₂O)—Continued:

W117, W122; **SdNu**:B122; **SdSp**:G121; **SdTr**:E45, L2; **SoH**:B213; **SoO**:B124, J44; **Sp**:S34, W144; **SpEl**:G20, L32, O27, S58; **SpM**:B53, G53, J14, K51, L6, S187, S188, S189; **SpVi**:C43, D29, D51, D52, D53, G21, G22, G121, H13, I12, K50, L34, L50, L63, M112, N9, S33, S84, S111, S221, T18; **Sr**:K63, N46, N59; **St**:D59, S33, S103, T18, W22; **StA**:E46, H112, W117; **StD**:B73, C163, D51, I12, S188; **StDi**:C163; **Sy**:A23, A26, B25, B58, B144, C40, C99, C100, E51, G98, I1, M59, N38, S146, S171, T57, V26, W57; **Th**:K56, S34, W144; **ThF**:E45, E46, L63, S197; **ThP**:C32, C99, E45, H112, L2, P109, T26, W60; **ThSo**:B214, C32, N47, N53, S218.

Water-t (H₂O-t) **AnC**:G57; **BiC**:G57, P66; **BiZ**:B249, C11, P94; **Eq**:L63; **EqG**:B107; **EqL**:J15, P66; **InBi**:L30, P2, P66, P97; **InSo**:B124, J44; **KiL**:J15; **SoO**:B124, J44; **SpFl**:G125; **SpVi**:L63, T18; **St**:T18; **Sy**:P2; **ThF**:L63, B107.

Xylene (C₈H₁₀) **AnDn**:F75.

Xylenol (C₈H₁₀O) **EqL**:T93.

Zinc **SoI**:B249.

Zirconium dihydride (ZrH₂) R99.

WASHINGTON, May 4, 1955.



